Record of Environmental Considerations (EA12)

Project engineer ⟵ Sections to be completed by ⟶ **Conservation officer**

This form is to be used for:

- Flood Alleviation Works over £25k
- Drainage Improvement Works over £25k
- Asset Repair/Refurbishment Schemes over £100k
- All other works over £100k
- Smaller schemes where there is a need for more specialist advertising and consultants

Project Name: CO401607 Newry Stage one

Unit:

Project Sponsor/Engineer: Craig Rankin

Checklist:

FORM	Included within consultant docs Y/N	Initial	Date
EC 12 – environmental considerations	Y	HM	20/12/18
PO 12 – options report	Y	EMcG	15/1/19
WF 12 – work characteristics	Y	EMcG	15/1/19
SA12 – site assessment	Y	HM	21/12/18
EI 12 – environmental impacts	N	HM	21/01/19

Where an EIA is carried out for a scheme, the content of these forms should be contained within the EIA document. As such, there is no need to repeat the recording of this information, but simply to refer to the section within the EIA document. EC12 must be completed for ALL proposed schemes

Environmental Statement Recommendation	CEEQUAL proposal
NO	*NO*

Project Sponsor - Tommy O'Neill **Date – 06/09/2019**

Environmental Manager – [redacted] **Date – 06/02/19**

DfI Environmental Officer – Gail Ritchie Date – 05/09/2019

DfI Environmental Manager

Step 1 Pre scheme Environmental Considerations EC 12
(to be filled in by Env Section and should form part of the pre feasibility study)
Project Name: Newry Stage 1 FAS

Watercourse Name: Downshire Stream (B2)		Comments
Current WFD Classification	/Moderate /	Moderate Ecological Potential (2009) classification.
Fisheries Interest – At site	**N**	Tributaries to the Newry river provide habitat which supports the salmon from Carlingford however downstream is heavily culverted and doesn't provide suitable migration habitat.
Fisheries Interest – receiving waters	**Y**	Carlingford Lough fisheries interest downstream.
Within Protected site – ASSI/Natura 2000	**N**	Not within N2000 site however tenuously hydrologically connected to Carlingford Lough Ramsar/SPA/ASSI, Carlingford shore SAC.
Within 3km of Natura 2000 site	**N**	All watercourses are hydrologically connected to Carlingford and so hydrologically connected to the Carlingford NA2000 sites.
Archaeological Interest	N	No listed buildings or assets on PRONI historical maps. Area has previously been excavated for various works and so unlikely to encounter underground assets.
Annex II Species	N	None noted on environmental walkover
Protected Species	**Y**	salmon and other potential species
Biodiversity Interest	**Low**	Stream is a fast flowing concrete channel with no instream vegetation which flows into a culvert travelling beneath the road; there are no vegetated banks for birds/insects. Downstream is an overgrown section of open channel which flows into a culverted system. Upstream the watercourse issues from field drains. There is no potential habitat for fish in this area.
Rivers Trust Catchment	N	No

Invasive Species	Y	Giant Hogweed located along the channel on the western side of Downshire road behind the carwash, downstream of the site.
Site Specific Interest	Birds	

Watercourse Name: Warrenpoint Rd Knox Peebles stream(D1)		Comments
Current WFD Classification	/Moderate /	Moderate Ecological Potential (2009) classification.
Fisheries Interest – At site	**N**	The watercourse is significantly overgrown with vegetation and does not currently provide suitable habitat for fish; the watercourse discharges to the newry river via a flap valve which prevents fish migrating.
Fisheries Interest – receiving waters	**Y**	The Newry rivers provide essential habitat which supports salmon; Inland Fisheries consultation will be required.
Within Protected site – ASSI/Natura 2000	**N**	Carlingford lough ASSI is adjacent to the outfall of the watercourse however the works are not in close proximity to the site.
Within 3km of Natura 2000 site	**N**	Knox peebles stream discharges directly to Newry River and so is hydrologically connected to the Carlingford NA2000 sites @ c.5km.
Archaeological Interest	N	No listed buildings or assets on PRONI historical maps. Area has previously been excavated for development and so unlikely to encounter underground assets.
Annex II Species	Y/N	Possible – Linear nature of the stream and relatively low activity area- likely to be used by bats- some trees present along the banks which may provide roost habitat.
Protected Species	**Y**	Potentially bats
Biodiversity Interest	**Med**	Heavily vegetated channel with semi improved grass banks, scattered shrub and trees. Carlingford Lough ASSI approx 2km south and known breeding wader grounds to the east and the ASSI is habitat for overwintering birds and breeding terns.
Rivers Trust Catchment	N	No
Invasive Species	Y	Giant Hogweed located along the channel
Site Specific Interest	Birds, Bats	

Watercourse Name: Derrybeg River (G1)		Comments
Current WFD Classification	/Moderate /	Moderate Ecological Potential (2009) classification.
Fisheries Interest – At site	**N**	The Newry river and tribs. provide essential habitat which supports salmonids; good water quality may provide habitat for fish however unlikely to be present here due to downstream culverting restricting migration.
Fisheries Interest – receiving waters	**Y**	Tributaries to the Newry river provide essential habitat which supports salmon.
Within Protected site – ASSI/Natura 2000	**N**	Not within N2000 or ASSI site
Within 3km of Natura 2000 site	**N**	Tenuously hydrologically connected to Carlingford Lough Ramsar/SPA/ASSI, Carlingford shore SAC, East Coast Marine proposed SPA.
Archaeological Interest	N	No listed buildings or assets on PRONI historical maps. Area has previously been excavated for development and so unlikely to encounter underground assets.
Annex II Species	N	None noted during the environmental walkover
Protected Species	**Y**	salmon and other potential species
Biodiversity Interest	**Low/Med**	High intensity anthropogenic activity area and currently culverted downstream; unlikely to be of high interest however the agricultural lands which lie adjacent to the scheme location may provide habitat for birds/bats.
Rivers Trust Catchment	N	No
Invasive Species	N	None noted on the environmental walkover
Site Specific Interest	Potentially bats and salmonids	

Watercourse Name: Armagh Rd Drain & Derrybed River (G3 & H3)		Comments
Current WFD Classification	/Moderate /	Moderate Ecological Potential (2009) classification.
Fisheries Interest – At site	**N**	Some potential however unlikely as both down and upstream are culverted.
Fisheries Interest – receiving waters	**Y**	Carlingford Lough salmon interest
Within Protected site – ASSI/Natura 2000	**N**	Not within N2000 or ASSI site

Within 3km of Natura 2000 site	**N**	Tenuously hydrologically connected to Carlingford. Lough Ramsar/SPA/ASSI, Carlingford shore SAC, East Coast Marine proposed SPA.
Archaeological Interest	N	No listed buildings or assets on PRONI historical maps. Area has previously been excavated for development and so unlikely to encounter underground assets.
Annex II Species	N	None noted on environmental walkover, significant culverting; not suitable habitat
Protected Species	**N**	None noted during the environmental walkover. Unlikley due to the urban setting
Biodiversity Interest	**Low/medium**	High anthropogenic activity area and currently culverted watercourses are unlikely to be of high interest. H3 may provide commuting and foraging area for bats and scattered mature trees may provide habitat.
Rivers Trust Catchment	N	No
Invasive Species	Y	Giant Hogweed located at H3 inlet grill and Giant Hogweed at G3 along watercourse in the bus depot
Site Specific Interest	Invasives	

Watercourse Name: Armagh Rd Drain & Derrybed River (H1)		Comments
Current WFD Classification	/Moderate /	Moderate Ecological Potential (2009) classification.
Fisheries Interest – At site	N	Significantly overgrown channel, culverted extensively downstream and so no potential habitat.
Fisheries Interest – receiving waters	**Y**	Downstream lies the Newry river and tribs which support fish
Within Protected site – ASSI/Natura 2000	**N**	Not within N2000 site
Within 3km of Natura 2000 site	**Y**	Tenuously hydrologically connected to Carlingford Lough Ramsar/SPA/ASSI, Carlingford shore SAC, East Coast Marine proposed SPA.
Archaeological Interest	Y/N	No listed buildings or assets on PRONI historical maps. Area has previously been excavated for development and so unlikely to encounter underground assets.
Annex II Species	N	None noted
Protected Species	**Y**	salmon and other potential species

Biodiversity Interest	**Low**	High anthropogenic activity so unlikely however overgrown vegetation provides potential for bird habitat and badger
Rivers Trust Catchment	N	No
Invasive Species	N	None noted on walkover
Site Specific Interest	Site requires channel maintenance- birds & invasives	

Conservation Officer: [redacted] Date:16/01/2019
DfI Environmental Officer – Gail Ritchie 05/09/2019

Notes:

- **WFD Classification** – Scheme should not lower status of watercourse.
- **Fisheries interest** – If yes working methods should include sediment / habitat management. Consultation with Inland Fisheries/Loughs Agency will be required.
- **Within Protected Site** – If yes then NIEA consult and assent required and / or Article 6 assessment.
- **Within 3km of Natura 2000 site** –If yes then Article 6 scoping required.
- **Archaeological Interest** – scheduled monument consent may be required. Consultation with Built Heritage will be required.
- **Annex II species** - If present or likely then working methods / design should take into account.
- **Protected Species** – a licence may be required for the movement of any such species.
- **Biodiversity Interest** – scheme should aim to protect high sites and improve medium / low sites. Scheme should also take cognisance of Local Biodiversity Action Plans. Opportunities to increase biodiversity value should be sought.
- **Site Specific Interest** – Should be taken into account in scheme design.
- **Rivers Trust catchment** – Should highlight the need to consult with local Rivers Trust
- **Invasive Species** – If present, an invasive species management plan will be required.

Step 2 Options Report PO12

(to be filled in by Project Engineer or by the consultant as part of the feasibility study)

Flood Risk Management should, in all considerations, be based on a catchment wide assessment. Options should consider the requirements of Water Framework Directive, and the potential for mutually beneficial measures.
Options should include sustainable flood management options, including those at distance from the site of the scheme. Options should also include potential solutions which employ a range of different measures and should include both structural and non-structural measures. This list is not definitive, and consideration of a mosaic of measures is encouraged.

Options	Pros and Cons
Do Nothing:	**Cons**

	potential flood risk of a 1 in 100 year event not mitigated against.
Proposals for 7No. sites include embankments, walls and culverts in line with the conclusions of the feasibility report undertaken by another consultant. Proposals to be progressed in line with the brief received from DFI Rivers. Summary of proposals/recommendations listed below:	Pros and cons discussed as part of the feasibility report undertaken and inherited as part of the brief to progress the works to the overall Newry Rivers and Tributaries stage 1 scheme. Report appended to this form.
B2 Floodwalls upstream of Downshire Rd D1 Floodwall/embankment A2 Warrenpoint Rd G1 Floodwall Chancellors Rd G3 Floodwall Upper Edward St H1 Embankment at Craigmore Rd H3 Armagh Rd Drain Culvert Cenotaph Wall - consider raising of existing wall	

Step 3 Selection of Preferred option.

Preferred Option:

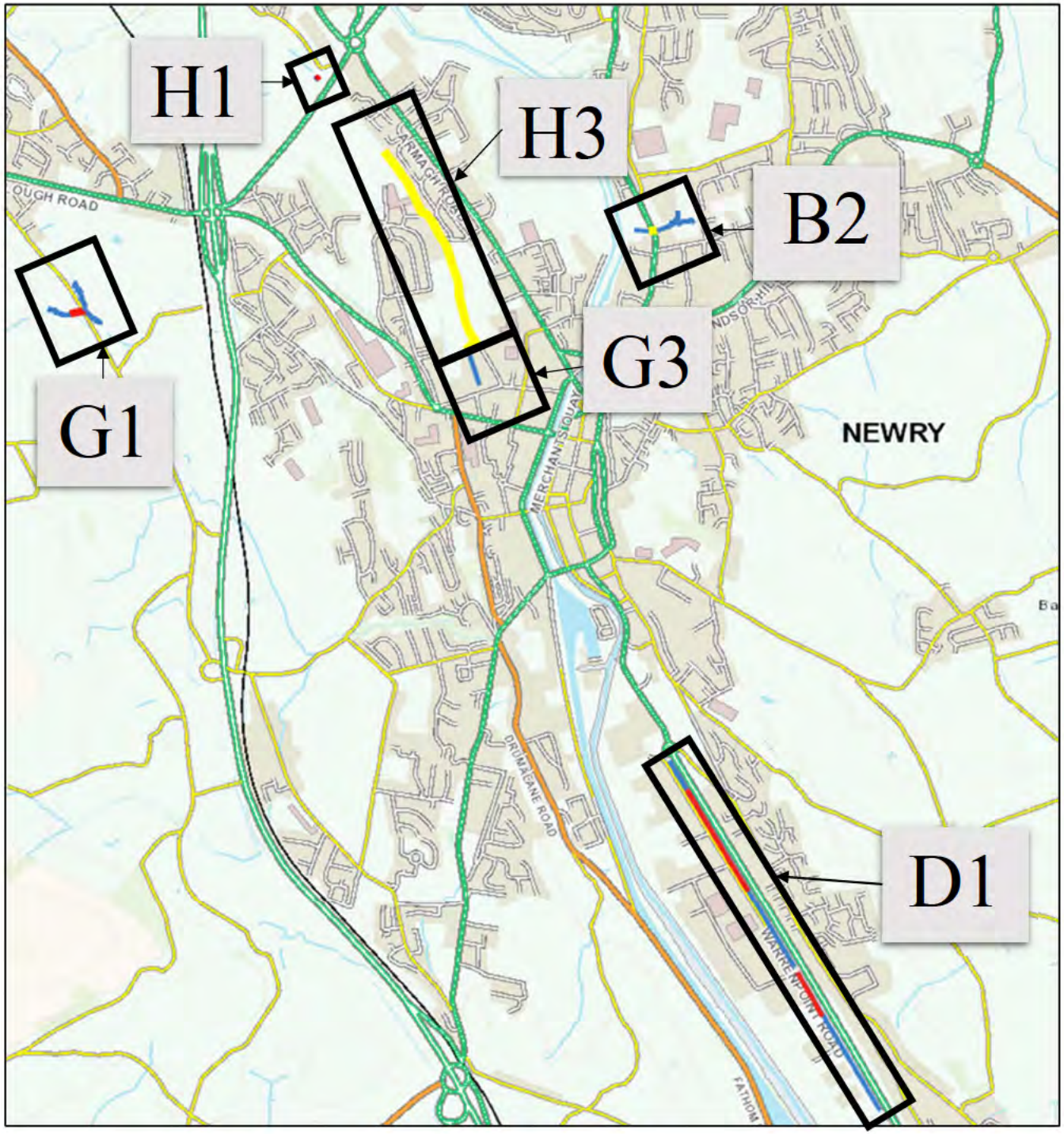
B2 Floodwalls upstream of Downshire Rd
D1 Floodwall/embankment A2 Warrenpoint Rd
G1 Floodwall Chancellors Rd
G3 Floodwall Upper Edward St
H1 Embankment at Craigmore Rd
H3 Armagh Rd Drain Culvert
Cenotaph Wall - consider raising of existing wall

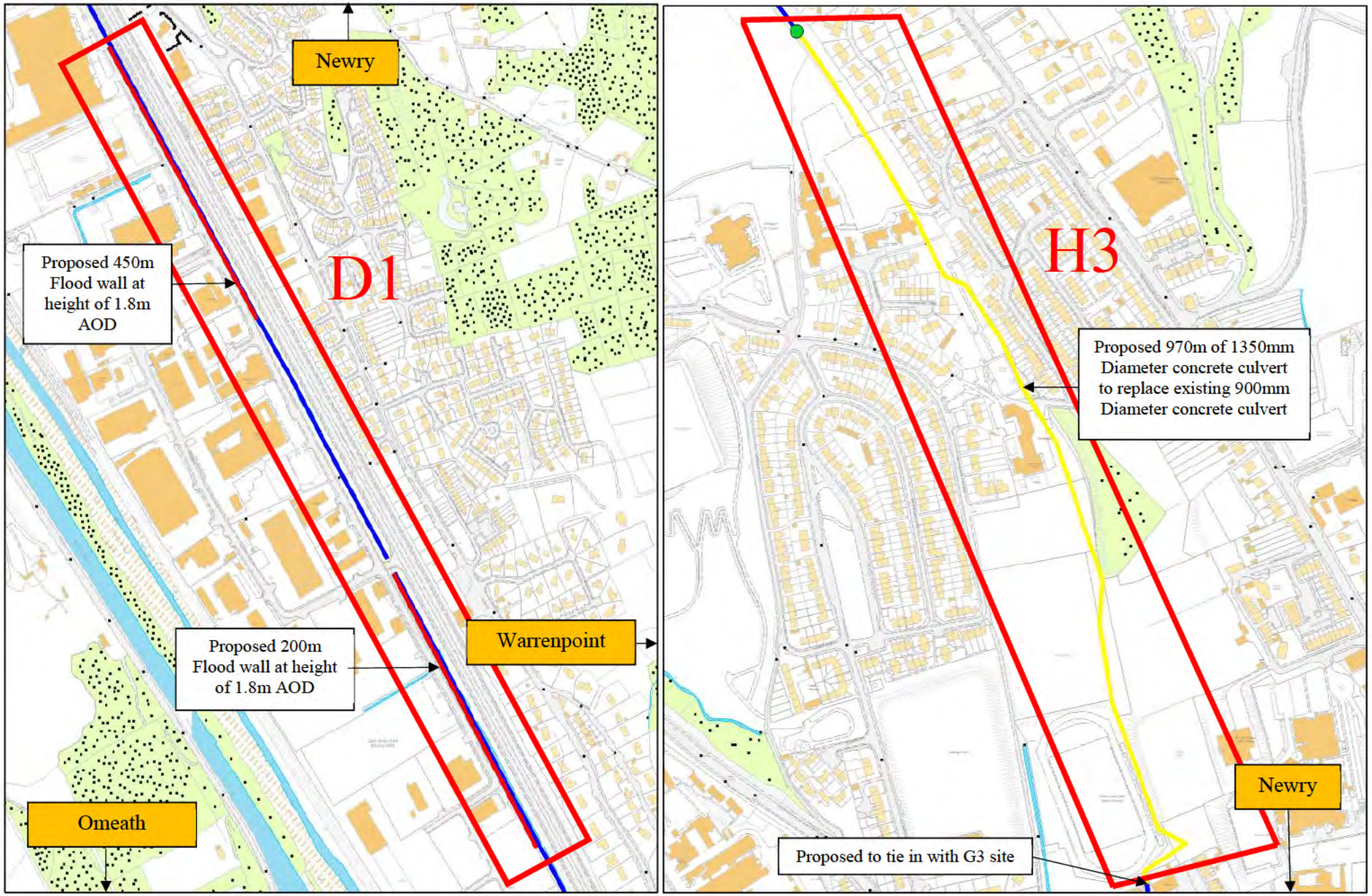
Reason for Selection:

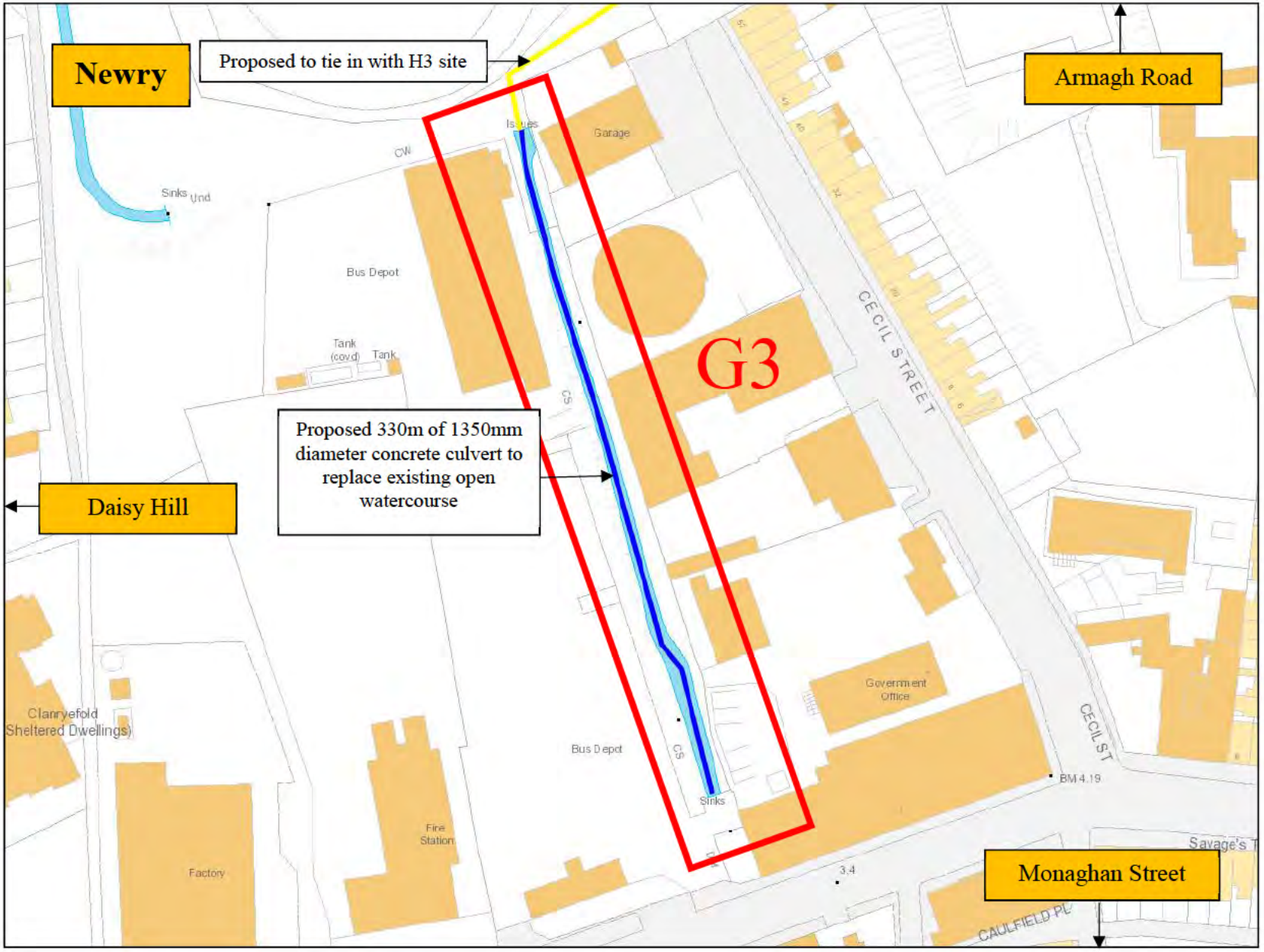
Recommendations given in previously commissioned feasibility study. Preferred options to be assessed for viability. Once satisfied that the recommendations form the most viable solution, detailed design is to be progressed in line with current industry standards.

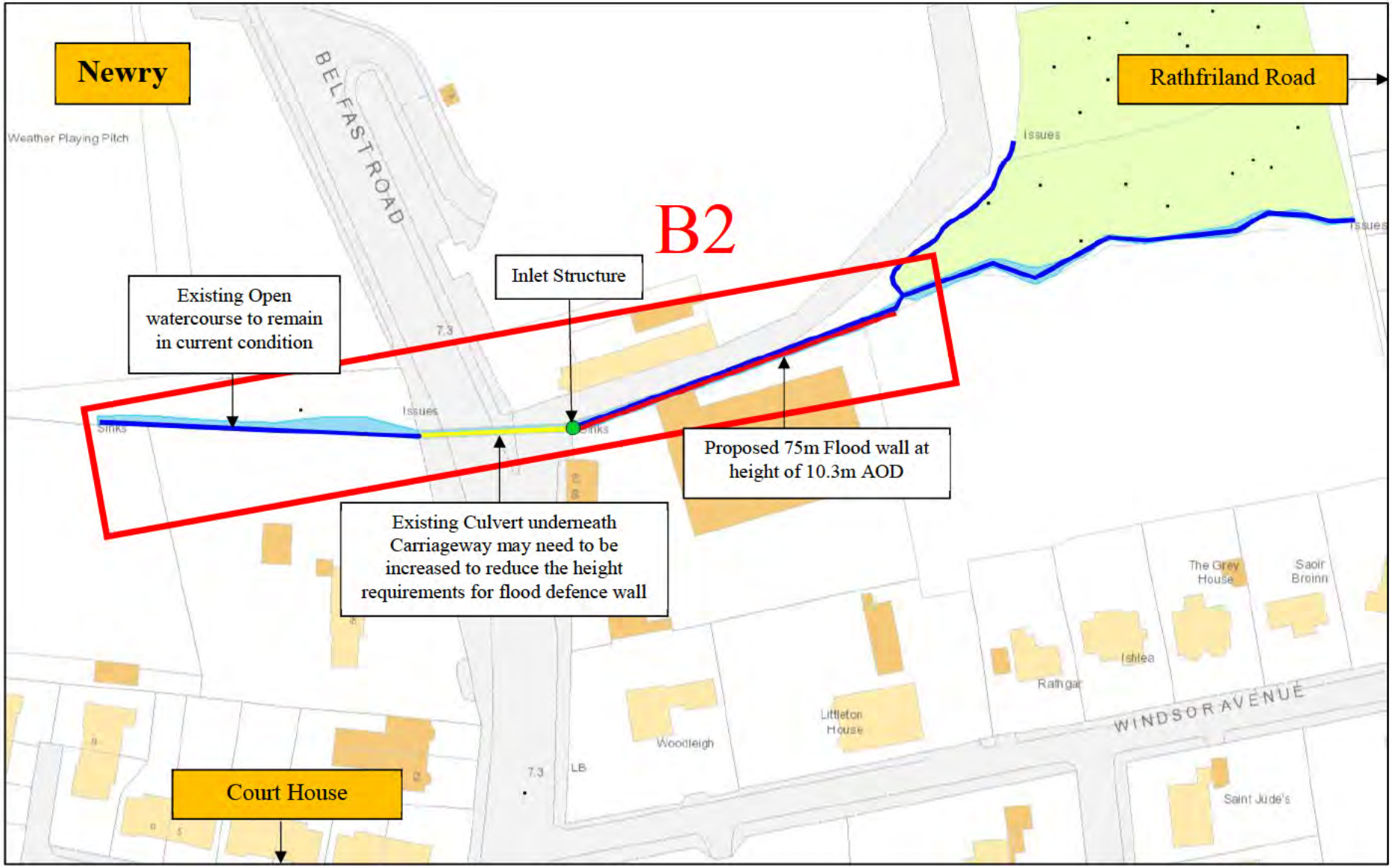
EIA recommended: at this stage, it is unlikely EIA will be required, however this will be reconsidered once final options are known for detailed design

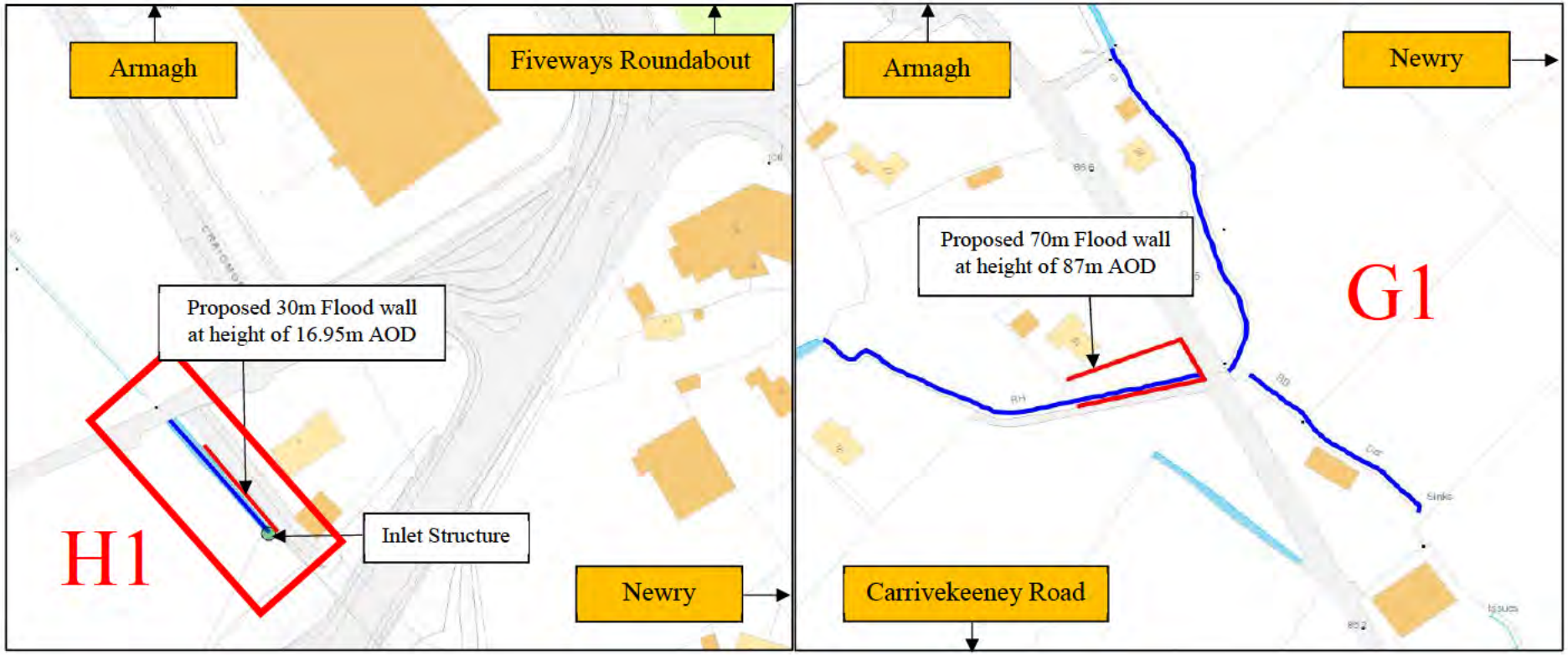
(See FAS scheme layout on next page.)


H1
H3
B2
G3
G1
D1
NEWRY
MERCHANT SQUARE
DRUMALANE ROAD
WARRENPOINT ROAD


Newry
D1
Proposed 450m Flood wall at height of 1.8m AOD
Proposed 200m Flood wall at height of 1.8m AOD
Warrenpoint
Omeath
H3
Proposed 970m of 1350mm Diameter concrete culvert to replace existing 900mm Diameter concrete culvert
Newry
Proposed to tie in with G3 site


Newry
Proposed to tie in with H3 site
Armagh Road
Garage
CW
Sinks
Und
Bus Depot
Tank
(covd)
Tank
G3
CS
CECIL STREET
Proposed 330m of 1350mm diameter concrete culvert to replace existing open watercourse
Daisy Hill
Government Office
CECIL ST
Clanryefold Sheltered Dwellings
Bus Depot
CS
Sinks
BM 4.19
Fire Station
Factory
3.4
Monaghan Street
CAULFIELD PL


Newry
Rathfriland Road
B2
Inlet Structure
Existing Open watercourse to remain in current condition
Proposed 75m Flood wall at height of 10.3m AOD
Existing Culvert underneath Carriageway may need to be increased to reduce the height requirements for flood defence wall
Court House
BELFAST ROAD
WINDSOR AVENUE
Weather Playing Pitch
Issues
Sinks
7.3
LB
Woodleigh
Littleton House
Rathgar
Ishlea
The Grey House
Saoir Bronn
Saint Jude's



Project Engineer -	[redacted]	**Date - 20/08/2019**
Conservation Officer -	[redacted]	**Date - 22/08/2019**
DfI Environmental Officer	**Gail Ritchie**	**Date – 05/09/2019**
DfI Environmental Manager	**Noel O'Neill**	**Date – 05/09/19**

Step 4 **Characteristics of Works (**preferred option**)** **WF12**
(to be completed by Project Engineer in conjunction with Conservation Officer).

Physical characteristics of the works:
B2 – 75m of decoratively finished reinforced concrete wall – Upgrade of culvert running underneath carriageway to reduce the height requirements of wall
D1 – 450m & 200m lengths of flood wall/embankment – available space to aid determination of final design
G1 – 50m of floodwall, final design to be determined
G3 – 330m length of open watercourse to be upgraded with a 1350mm Diameter concrete culvert – to be tied in directly with H3 proposal
H1 – 30m of flood embankment
H3 - 970m length of concrete culvert upgrade to 1350mm diameter

Landuse requirements during construction and operation:
Temporary land use during construction works- will be reinstated upon completion.
Use of natural resources:
Raw materials etc will be sourced locally. Where possible excavated materials will be re-used onsite.
Waste production (expected residues and emissions): Stockpiles/excess spoil during construction; possible waste effluent from concrete washing etc. Materials will be reused onsite where possible to reduce waste.

Nuisances and pollutants:
Contaminated/sediment laden discharges during construction phase deteriorating local water quality and causing polluting discharges to the Designated Sites downstream of the works.

Technical difficulties or lack of knowledge requiring redress:
Lack of detailed design drawings- the assessment will be updated once design is confirmed.
Likely effects of works (direct/indirect; cumulative; secondary; short/medium/long term; positive/negative):
Direct, short term negative impacts on local water quality. Indirect cumulative, short term negative effects on Designated Sites downstream.
Direct long term positive impact on local flooding.

Project Engineer - [redacted] **Date – 22/8/19**

Interdisciplinary Meetings.

Attendees - [redacted]

Date - 15/01/2019

Attendees - Gail Richie, Niall Donaghy, Noel O'Neil, Andrew Hitchener, [redacted]

Date - 12/4/19

Step 5 **Site assessment of works location** **SA 12**

(to be completed by Environment Section)

	B2	D1	H3 & G3	H1	G1
Existing landuse	**Current watercourses**				
Relative abundance, quality and regenerative capacity of natural resources (incl habitats) in the area.	Watercourse is a concrete channel no regeneration capability.	Vegetated channel- likely to regenerate	Loss of vegetation- regeneration likely	Vegetated channel- likely to regenerate	Relatively unvegetated channel likely to regenerate
Absorption capacity of the natural environment to include:					
• Wetlands	**N/A**				
• Coastal Zones	Transitional newry river is located adjacent to Knox peebles stream (D1)				
• Mountain and forest	**N/A**				
• Designated sites	Carlingford Lough located >5km indirectly hydrologically south- not directly impacted. Large hydrological dispersion and dilution. The sites have been screened out as there is no likely effect on the site features as a result of the scheme.				

	B2	D1	H3 & G3	H1	G1
• Damaged lands	**N/A**				
• Densely populated sites	Dense urban setting	Industrial setting	Urban setting	Urban setting- sparse	Relatively rural setting
• Lands of historical, cultural or archaeological value	Unlikely archaeology interest.				

Conservation Officer – [redacted]

Date – 21/08/2019

DfI Rivers Environmental Officer – Gail Ritchie Date – 05/09/2019

Step 6 Environmental Impact Form EI 12

(to be completed by Environment Section). This can be omitted if a full EIA has been carried out.

This assesses the impact of the preferred option.

To include consideration of the following impact characteristics:

- Extent of the impact (include whether permanent or temporary)
- Short, medium and long term impacts.
- Probability of the impact.
- Direct and indirect impacts, and whether positive or negative.

The above should be considered at pre, during and post works.

Significant environmental effects and proposed mitigation measures		
Environmental Impacts (EA Regulations Schedule 12A)	**Characteristics of Impact**	**Mitigation Measures**
Human Beings	Impacts of works & finished scheme on private & public property / space	Pre-works surveys and appropriate consultation with property owners and statutory bodies; Traffic management will be installed where required.
	Visual impacts / aesthetics	Appropriate screening / fencing of works; choose finish materials carefully
	Disruption of services and essential access	Maintain essential access or provide additional routes
	Noise / dust / lighting issues during construction period	Minimise working outside normal hours (8am-6.30pm); Switch off machinery when not in use; use dust suppression measures when needed
Flora	Damage to habitat through works traffic; Loss of habitat through vegetation clearance	Work exclusion zones & dedicated access routes; Identify which vegetation needs to be removed and protect that which is to remain.
Fauna	Impacts from construction works on several species including: Birds- loss of habitat / nesting disturbance	Carry out vegetation removal outside bird nesting season (March-August); Contractor to produce pollution prevention plan highlighting methods to prevent sediment / pollution release into Newry River;
Water	Pollution risk from construction works via: Discharges, refuelling, washings, sediment release, de-watering etc.	Protect existing drainage channels by identifying surface drains & preventing site run off; No storage of fuel/materials on undefended floodplain; Use drip trays when refuelling / maintaining vehicles; Intercept wheel washings and treat before discharge; Contractor to produce a construction EMP, Pollution Prevention Plan and Incident response plan agreed with NIEA; maintain vegetated buffer zone between works and river channel and use silt fencing as an added measure.
Air	Impact possible from: dust Machinery emissions	Contractor to actively manage dust levels; Machinery to be adequately maintained and not left idling.
Interaction between any of the foregoing	Interaction of pollution / discharge impacts on water and fauna	Follow mitigation measures outlined above to reduce potential impacts.
Material Assets	Damage to property through direct impacts or vibration is unlikely considering the nature of the works	Contractor to manage onsite vibration when in close proximity to dwellings
Cultural Heritage	N/A	N/A

	Environmental Manager - Andrew **Date - /8/19** **DfI Rivers Environmental Manager – Noel O'Neill – 05/09/19**	**Conservation Officer -** [redacted] **Date - 21/08/2019** **DfI Rivers Environmental Officer – 05/09/2019**

Pre works consultation requirements. (Include water quality considerations) –

Normal DfI Consultees list

Survey/monitoring requirements (this should include both pre and post work monitoring –

- Water quality monitoring both upstream and downstream of all sites pre, during and post construction to ensure no degradation of water quality or polluting discharges to receiving waters.

Sustainability of project (this should include partnership working options) –

N/A

Enhancement opportunities (mention should be made of links with other plans and measures such as WFD PoM and LBAPs) –

- Potential for channel maintenance to improve water quality and biodiversity potential.

- Potential for improvement through invasive species removal at sites

Is the project going forward for CEEQUAL Assessment? –

NO

Environmental Statement (ES) recommended –

NO

Environmental Statement (ES) undertaken – *NO*

Step 7. Administration

Administration Section – advertisement & display of scheme (Drainage Order).

Advertise ES decision (STET)	Date Advertised	Signature	Date forwarded to Project Manager
Journals used	1.	2.	3.

Handling of ES Responses (instigated by Project Engineer)

Actions	Dates
Interdisciplinary meeting (incl. Consultant)	
Meeting with respondents (if necessary)	
Agreed reply(s) to respondents issued	

Ecological Due Diligence - Bat and Bird checks
Warrenpoint Road
Newry
Co Down

WM Associates

[redacted]

[redacted]

22/06/2022

WM ASSOCIATES
ECOLOGY NI

Ecological Due Diligence - Bat and Bird checks
Warrenpoint Road
Newry
Co Down

Contents:

Ecological Due Diligence - Bat and Bird checks
Warrenpoint Road
Newry
Co Down

Background

The ongoing flood alleviation scheme at Warrenpoint Road, Newry requires selective removal of a mix of mature and semi-mature trees and saplings on the south-west side of the channelized waterway immediately adjoining Ballinacraig Way. Given the planned timing for this work, WM Associates were appointed to undertake a survey for evidence of nesting birds prior to the start of any clearance of vegetation.

Survey was undertaken by [redacted] on behalf of WM Associates.

Legal and policy framework

Northern Irish legislation	
The Wildlife (Northern Ireland) Order 1985 and its amendments	Sets out the protection which is afforded to wild animals and plants in Northern Ireland. Lists non-native species that it is illegal to release or to cause to grow in the wild. Protects all wild birds from unlawful killing or injury. It is an offence to intentionally or recklessly: • kill, injure or take any wild bird • take, damage, destroy or disturb a nest whilst it is being built or is in use • obstruct or prevent any wild bird from using its nest • take or destroy the egg of any wild bird • disturb any wild bird whilst it is in, on or near a nest containing eggs or young • disturb dependent young of such a bird. The 2011 legislation affords protection for nests of all species listed on Schedule A1 throughout the year
Wildlife and Natural Environment Act (Northern Ireland) 2011	Makes it a legal duty of public bodies to conserve Biodiversity. Amends the Wildlife (NI) Order 1985 to protect a greater range of native species, and to proscribe a wider range of non-native invasive species, and increases protection of Areas of Special Scientific Interest.

Further information from DAERA on Environmental Advice for Planning: Standing Advice Wild Birds can be found at https://www.daera-ni.gov.uk/sites/default/files/publications/daera/DAERA%20Wild%20Birds%20Template%20-%20Final%20February%202020.pdf

Summary report

The assessment of land associated with the flood alleviation scheme at Warrenpoint Road, Newry was undertaken to determine if there was any evidence of birds nesting in the trees scheduled for clearance.

Site survey commenced at 07.00 on 14th June 2022. The survey extent and other requirements had already been confirmed.

A very limited number of birds were recorded (both in terms of species diversity and absolute numbers) reflecting the limited extent of nesting habitat. While the trees included a number of mature oak, the associated ground, field and scrub layers adjoining the tree line was poorly developed and/or had already been partially cleared. With limited cover present, groups such as the ground nesters were absent. Those present were associated with the pockets of dense vegetation on the Warrenpoint Road side of the waterway.

The oak trees did offer some nesting opportunities for hole-nesting species and a number of these were present. While no behaviours were recorded that clearly indicated the presence of actively nesting species, the presence of suitable micro-habitats, the inability to view all activity in the main canopies (due to limited survey positions and dense foliage), together with multiple occurrences of hole-nesting species (recorded by sightings but mainly by call/song) means that a precautionary approach is justified.

From the preliminary ground level roost assessment, a moderate potential for roosting bats was identified in a number of trees, representing a level of risk of illegally disturbing/destroying roosts and injuring/killing bats that is normally addressed by further more detailed bat survey.

It is therefore recommended that no further felling of trees takes place until the end of the breeding season i.e. until after the 31st August 2022, and that the felling of trees with a moderate bat roost potential are subject to further surveys to address the possibility of rooting bats.

If the project requires clearance before the 31st August, a further breeding bird survey could be undertaken, but with the same survey limitations noted above.

Site description and map

The survey area was confirmed in advance and reconfirmed on site with representative of AG Wilson.

The vegetation of interest was a series of mature and semi-mature trees and a few saplings. The full list of each tree species was recorded in the bat assessment document and included Oak (species not determined), Ash, Sycamore, Elm (species not determined) and Beech. Birch saplings were also present.

No shrub layer was present.

The field layer was very limited and open with limited units of Bramble, Broom and scattered young Willow (species not determined), Dog Rose and Cherry (species not determined). Scattered Oak, Birch, Hawthorn, Rowan and Beech seedlings/very young saplings were also present.

The ground layer was very disturbed and typically grass dominated but also included bare ground and areas of rubble/dumped soil.

The limits of the survey area were marked on a standard OSNI digital base map to be used for recording all bird activity.

Survey details

Staff

14/06/2022	[redacted]

Weather: Cloud: 5/8. Wind 2 – 3 southerly westerly. Precipitation: 0. Visibility excellent. Conditions were suitable for a survey of breeding birds.

Statement of Authority: Before leaving the Civil Service, [redacted] was senior ornithologist at NI Environment Agency, leading on Northern Ireland's statutory ornithological site designation programme (ASSI, SPA and Ramsar). He produced the conservation objectives and related documentations for the series of SPAs in Northern Ireland.

His work included assessment and evaluation of development proposals in relation to designated sites throughout Northern Ireland including HRA and related procedures.

[redacted] has over 30 years of organising, co-ordinating and delivering ornithological and related terrestrial and marine habitat surveys including WeBS, BBS, breeding waders, raptors, WBBS, breeding seabirds and heronries (NI coordinator for BTO).

Statement of Objectivity: The data have been collected and presented impartially. Payment or other favour is not dependent upon any particular planning outcome, and there is no other vested or personal interest in any particular outcome, or any commercial products mentioned.

Survey methodology:

Nesting Birds

Survey methodology has been adapted from British Trust for Ornithology's Breeding Bird Survey (BBS)[1] and Breeding Bird Atlas Programmes[2]. Bird registrations together with bird behaviour were used to inform the likelihood of breeding activities in the survey area.

[1] https://www.bto.org/our-science/projects/bbs
[2] https://www.bto.org/our-science/projects/birdatlas/about

Virtually all of the survey records are either of singing/calling birds or birds occurring in habitat that would meet their breeding needs. This of itself does not prove breeding. The evidence used to support possible, probable and confirmed breeding (and to indicate non-breeding) is shown on the BTO code sheet which also provides codes for the species recorded.

The survey consisted of repeated walks along the areas scheduled for clearance, recording any bird species present together with details of behaviours to determine the likelihood of their breeding at the time of the survey. Any birds present were watched to determine if they were actively using any part of these areas in a manner suggestive of nesting.

As would be expected, many of the bird registrations were either by song/call. These would only place these registrations in the 'possibly breeding' category. It is of course likely that many of these records do relate to breeding birds and indeed the methodology as interpreted by the BTO would accept these as evidence of breeding. No behaviours were noted suggestive of either probably or confirmed breeding. However evidence noted below is suggestive of current breeding activity.

Usually evidence of nesting is obtained through observation of bird activity in areas likely to host nests. Such evidence would include birds displaying or showing agitated behaviour, birds carrying nesting material, repeated movement of birds (of the same species) to and from a particular location, observation of birds in that area carrying food or the sound/sight of nestlings.

Given the timing of the survey, the fact that trees were in full foliage, the size of the trees and the limited sight lines available (taking account of the waterway and traffic activity) meant that it was impossible to see all activity in the canopy crown. Only audible behaviours could be identified (song and calls) while activities such as carrying food, removal of faecal sacs etc. would be undetected.

See the section below on 'bird records and results'.

Roosting bats

Bat assessment was made as per BCT (2016) methodology, to determine presence of any habitat or micro-habitat suitable for bats.

A number of the trees are mature enough to have developed a combination of features which have the potential to be utilised by bats including holes and fissures.

Bat Roost Risk Categories

Risk Category	Description
0	*No potential to host roosting bats*. Trees without loose bark, fissures and rot holes, and not with dense mature Ivy cover. Generally young to semi-mature specimens.
1	*Unlikely to host roosting bats*. Trees without loose bark, fissures and rot holes, and not with dense mature Ivy cover, but the tree is of a size and age that climbing surveys may result in cracks or crevices being found which may have limited potential to host roosts.
2	*Moderate potential to host roosting bats*. Trees with e.g. loose bark, deep fissures or splits and rot holes, or with dense thick-stemmed Ivy likely to present potential at least for use by single bats.
3	*High potential for roosting bats*. Trees with multiple, highly suitable features capable of supporting larger roosts.
4	*Confirmed roost site or evidence of roost occupation.*

Potential roosting features (PRFs) of trees for bats

- Knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar
- Man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems
- Woodpecker holes
- Cracks/splits in stems or branches (both vertical and horizontal)
- Partially detached platey bark
- Cankers (caused by localized bark death) in which cavities have developed
- Other hollows or cavities, including butt-rots
- Compression forks with included bark forming potential cavities
- Crossing stems or branches with suitable space between for roosting
- Ivy stems with diameters in excess of 50 mm with suitable roosting space behind, or where a roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk
- Bird and bat boxes on trees
- Other features that offer a place of shelter

Details of each tree are noted below together with photographs of features which may be used by bats. Trees were not tagged, but correspond to numbered images presented below:

Tree numbers (Imagery from Google Street View dated April 2022)


7
8
9
10
11


12
13
14


15
16
17
18


19
20
21


22
23
24

Survey Findings

Birds

Site survey commenced at 07.00 on 14th June 2022. The survey extent and other requirements had already been confirmed. The site was walked, accompanied by a representative of the contractors.

All bird records (registrations) and behaviour are shown on the annotated map below. As the focus was on evidence of breeding/nesting birds, birds flying over the site were not recorded.

It should be noted that locations for each bird record indicates their position at time of registration – this is not an indication of either nest locations (if the birds are breeding) or the full extent of their territories.

A very limited number of birds were recorded (both in terms of species diversity and absolute numbers) reflecting the limited extent and quality of nesting habitat. While the trees included a number of mature oak, the associated ground, field and scrub layers adjoining the tree line was poorly developed and/or had already been partially cleared. With limited cover present, groups such as ground nesters were absent. Those present were associated with the pockets of dense vegetation on the Warrenpoint Road side of the waterway.

The oak trees did offer some nesting opportunities for hole-nesting species and a number of these were present. While no behaviours were recorded that clearly indicated the presence of actively nesting species, the presence of suitable micro-habitats, the inability to view all activity in the main canopies (due to limited survey positions and dense foliage), together with multiple occurrences of hole-nesting species (some recorded by sightings but mainly by call/song) means that a precautionary approach is justified.

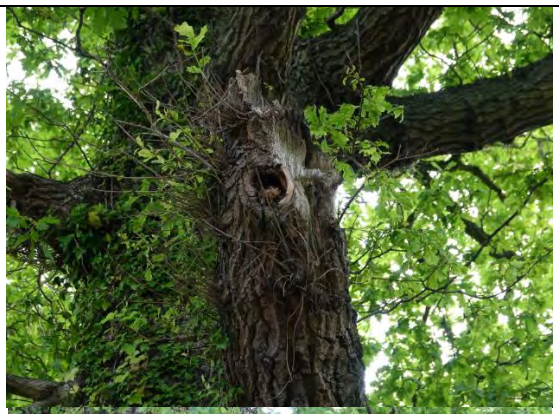
The likelihood of undetected current breeding birds (as of survey date) is highlighted by information that spent eggs had been noted the previous day (13th June). Their description matches that of either Blue or Great Tit (latter species was not recorded during the survey). The eggshells could not be relocated and had probably been scavenged. This does suggest recent hatching of, probably Blue Tit, in the area with the spent eggshells being discarded by the adult birds.
It is therefore recommended that no further felling of trees takes place until the end of the breeding season i.e. until after the 31st August 2022.

If the project requires clearance before that date, a further breeding bird survey could be undertaken, but with the same survey limitations noted above.

Recommendations are provided and include action to address the potential for breeding activity on site between the period of the survey and vegetation clearance being undertaken.

While undertaking the survey, the potential for bats was noted i.e. some of the trees had micro-habitats that could potentially be used by bats. After consultation it was agreed with W M Associates that notes and photographs would be compiled to assess trees using the Bat Conservation Trust (2016) methodology. This report has been forwarded to W M Associates.

Bats

Tree	Description	Comment	Photograph
1	Sycamore – 'double trunk' –ivy limited to trunk. No holes, fissures, loose bark etc.	Category 0	
2	Mature Oak – ivy limited to trunk. Some limited bough/branch removal but no obvious holes, fissures etc	Category 1	
3	Mature oak as 2 but potential holes present + fractured bough	Category 2	 
4	Mature oak with potential holes present	Category 2	
5	Young ash	Category 0	

6	Mature Oak – ivy limited. No obvious holes, fissures etc	Category 0	
7	Mature Oak – ivy limited. Number of broken boughs with bat potential.	Category 2	
8	Mature oak with heavy ivy cover	Category 2	
9	Two young Birch saplings	Category 0	
10	Dead tree – ‘stag crown’ with heavy ivy cover	Category 2	
11	Elm with limited ivy but dense crown	Category 1	
			WIDE GAP TO NEXT TREE
12	Mature Oak – ivy limited. No obvious holes, fissures etc	Category 0	

			FORMER ‘FOOT BRIDGE’
13	Oak as 12	Category 0	
14	Young sycamore	Category 0	
15	Oak with limited ivy but broken/cut bough	Category 1	
16	Semi-mature beech with no bat potential	Category 0	
17	Mature Oak – ivy limited. No obvious holes, fissures etc	Category 0	
18	Sycamore with regeneration from base. No bat potential	Category 0	
19	Oak with limited ivy – as with most trees, ivy has been cut towards base to kill higher growth. Dense network of dead ivy stems and some bark fissures apparent	Category 2	
20	Birch sapling	Category 0	
21	Mature oak with limited ivy – broken bough	Category 2	
			WIDE GAP TO NEXT TREE

22	Elm – heavy ivy cover – dense canopy area	Category 1	
23	Ash with advanced dieback. Broken boughs and potentially areas with rot	Category 2	
24	Oak with ivy cut back – broken bough etc.	Category 2	

Recommendations

1. Be certain that the tree removal is required in order to install the required sheet piles, and that trees closer to the canal could not be retained.

2. The survey does not rule out a risk of illegally disturbing/destroying bird nests. As a precautionary measure, based on the evidence above, no further felling of trees takes place until the end of the breeding season i.e. until after the 31st August 2022.

3. If the development planning requires clearance before that date, a further breeding bird survey could be undertaken, but with the same survey limitations noted.

4. In the event of nesting activity being identified in the course of site works, contact the surveyor or Northern Ireland Environment Agency Wildlife Team (https://www.daera-ni.gov.uk/contacts/wildlife-team) for advice.

5. Note the accepted period for bird nesting season is between 1st March and 31st August. If activities are carried out outside of those dates it avoids the risk of impacting nesting birds and the need for dedicated nest surveys.

6. The bat assessment highlighted the presence of a number of trees that would be classified as 'risk category 2 (Bat Roost Risk Categories after BS 8596 'Surveying for bats in trees and woodland'). Further work is required by a bat survey specialist to manage the legal risk of felling these trees.

   Depending upon the timing if the re-scheduled felling this would involve either an emergence/return survey for each tree whereby an observer at dawn or dusk will check for bats returning, or emerging from roosts within the trees. Unless trees are close together a single observer will only be able to cover a single tree per survey.

   An endoscope survey using climbing equipment or a cherry picker may be possible, and would be the only option after bats cease to be active around mid-October.

   Although this is not for a planning application, it is recommended that the contractor who conducts the additional bat surveys is an NIEA approved bat worker.

7. Informative: The Newry Canal is a known site for Giant Hogweed (Heracleum mantegazzianum). None was noted on this section during the survey.

Appendix 1 : Bird registrations

Warrenpoint Road, Newry survey areas with bird registrations.

BTO species codes shown as are codes for recorded behaviours

Species code
B – Blackbird
BC - Blackcap
BT – Blue Tit
GC - Goldcrest
HS - House Sparrow
MG – Magpie
R Robin
SG – Starling
WP - Woodpigeon
WR - Wren

Survey limits

Behaviour code
Possible breeding
H – bird recorded in area with suitable nesting habitat
S – Singing male present in suitable nesting habitat
Probable breeding
A - Agitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby

FP – Family party – clearly have bred but may not be from immediate area

Appendix 2 : Site Photographs

Series showing limited habitat adjoining trees. Denser and hence better quality habitat occurs on the opposite bank – to be left intact.