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meath county council

MEATH COUNTY COUNCIL
Athboy Town Centre Project

Project Environmental Appraisal Report



Rialtas na
hÉireann
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of Ireland

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TOBIN Consulting Engineers

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1.0 INTRODUCTION AND DESCRIPTION

1.1 INTRODUCTION

TOBIN Consulting Engineers (hereafter referred to as TOBIN) have been commissioned by Meath County Council to provide design consultancy services for the Athboy Town Centre Project. This project appraisal report outlines the potential high-level environmental constraints for the Athboy Town Centre Project through a desktop assessment and site visits carried by TOBIN Engineers. This project includes the provision of a bus stop facility to the NW of St. James Catholic Church including all ancillary highway works and Public Realm upgrade works up to the N51 Junction and the removal of the bottle bank adjacent to St James' Church and relocation to the Meath County Council Depot, located at Coille Dios

Athboy lies within easy reach of Navan, Trim and Kells, being in the west of County Meath. As a relatively large urban area, it is important that Athboy maintains good transportation linkages to surrounding urban and rural areas, which is a key factor in attracting future economic and residential populations as well as serving the needs of the existing populations and businesses. The Main Street is recognised as a constrained route which caters for local and national road traffic.

1.2 PROJECT DESCRIPTION

The proposed development will consist of:

- Amendments to the junction between the N51 and Side Road.
- Road Alignment upgrades to remove a 90° bend close to Church, Creche and Primary School.
- Amalgamation and upgrade of three existing car parks into one proposed carpark, for the provision of 57 no. car parking spaces, including 4 no. accessible spaces, 6 no. age friendly spaces and 2 no. EV spaces.
- Removal of undesignated parking zone adjacent to St. James' Catholic Church and creation of a designated bus stop and turning facility.
- All associated ancillary highway works relevant (drainage, utilities, public lighting, KFPA, signs and lines and pavement design).
- Removal of the bottle bank adjacent to St. James' Church on the Side Street and relocation to the Meath County Council Depot adjacent to Coille Dios.

The Athboy Town Centre Project involves the proposal to provide a designated bus stop facility and associated urban realm upgrades within Athboy Co. Meath.

Key areas have been identified for improvements through the published documents of Athboy written Statement, Athboy Local Area Plan, and the Walkability Audit. These improvements have been envisaged with the goal of linking all areas of the town by introducing better walking facilities, pedestrian focused street space, and designated and controlled parking areas.

The relocation of the existing bus stops on Main St., located to the NE of the intersection of Main- Street (N51) and Connaught St. has been identified in each report. The existing bus stops have been criticized for causing traffic backups on the main street. The location of the current bus stop also requires passengers to make their way through parked cars in order to embark/disembark from the service which is a significant safety issue. The existing operation has a negative effect on both motorists and pedestrians.

The introduction of a defined bus stop would eliminate these issues. It would create a designated area for all passengers to access the bus services in a safe and comfortable manner, which will encourage use of the service. It will also help mitigate the issue of traffic congestion due to bus traffic, and therefore create improved traffic flow through the town. The traffic in Athboy is a mixture of heavy goods vehicles (HGVs), bus and utility service vehicles, as well as regional and local car traffic. Traffic is observed as relatively significant and constant throughout the day, particularly at peak times. As a relatively large urban area, it is important that Athboy maintains good transportation linkages to surrounding urban and rural areas, which is a key factor in attracting future economic and residential populations.

In addition to the provision of a designated bus stop facility the scheme will enhance the public space adjacent to St. James Catholic Church, through the development of new pedestrian facilities and an upgraded urban realm space.

2.0 CONSTRAINTS STUDY

As part of the Constraints Mapping Process for the Athboy Town Centre Project, TOBIN have assessed the Natural and Artificial Constraints for the Study Area under the following headings:

- Ecological Constraints;
- Groundwater and Surface Water Constraints; and
- Cultural Heritage Constraints.

2.1 ECOLOGICAL CONSTRAINTS

2.1.1 Methodology

The aim of this ecological constraints assessment is to identify and describe sites of known and/or potential ecological interest and thus identify the potential ecological constraints on the proposed application area.

A desktop review and site visits, undertaken by TOBIN Engineers, were carried out to identify, describe, and map areas of known and/or potential ecological value. The material sources consulted as part of this review included:

- A review of the National Parks & Wildlife Service (NPWS) natural heritage database for designated areas of ecological interest and sites of nature conservation importance within and adjacent to the proposed application area¹,
- A review of the NPWS rare and threatened species database for records of species of conservation interest within the proposed application area².
- A review of the Water Framework Directive including river, lakes, and streams³.
- A review of the Environmental Protection Agency (EPA) mapping database⁴.
- Literature/data review to identify and collate relevant published information on both ecological aspects of the proposed application area and relevant ecological studies conducted in other areas, including the following:
 - National Biodiversity Data Centre (NBDC) online database⁵
 - Bat Conservation Ireland's website⁶
 - Irish Butterflies website⁷, and
- Inland Fisheries Ireland (IFI) research data, including a review of research studies carried out for the Habitats Directive and Red Data Book Fish species within the receiving environment⁸.

¹ <https://www.npws.ie/protected-sites>

² <https://www.npws.ie/maps-and-data/habitat-and-species-data>

³ <https://www.catchments.ie/guide-water-framework-directive/>

⁴ <https://gis.epa.ie/EPAMaps/>

⁵ <http://maps.biodiversityireland.ie>

⁶ <http://www.batconservationireland.org>,

⁷ <http://www.irishbutterflies.com>

⁸ <https://www.fisheriesireland.ie/sites/default/files/migrated/docman/Habitats%20Directive%20Report%202018.pdf>

2.1.2 Results

2.1.2.1 Designated Sites

Under European and national legislation, Ireland is required to conserve habitats and species, through designation of conservation areas.

The basic designation for wildlife is the Natural Heritage Area (NHA). This is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection. Under the Wildlife Amendment Act (2000), NHAs are legally protected from damage from the date they are formally proposed for designation. In addition to NHAs, there are a number of proposed NHAs (pNHAs), which were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. These sites are of significance for wildlife and habitats.

In addition to NHAs and pNHAs, there are also prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the 'EU Habitats Directive', provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of a European Union (EU)-wide network of sites known as Natura 2000 network. The Natura 2000 network is made up of European sites including Special Protection Areas (SPAs), established under the EU Birds Directive (2009/147/EC) (more generally referred to as the 'EU Birds Directive') and Special Areas of Conservation (SACs), established under the EU Habitats Directive.

As an urban area, Athboy town is considered to be an area of low ecological value. The Athboy Town Centre proposed application area, including any land which may be acquired for delivery of the project, is located entirely on existing developed lands or lands currently under development. Following a desktop review, no Irish or European designated sites were identified within the proposed application area. As shown in Figure 2-1, the River Boyne and River Blackwater SAC (Site Code: 004232) and SPA (Site Code: 004232) are both located approximately 350m north-east of the proposed application area and continue along the river north-west and south-east. Girley (Drewstown) Bog SAC (Site Code: 002203) is located north of the proposed application area (Figure 2-1).

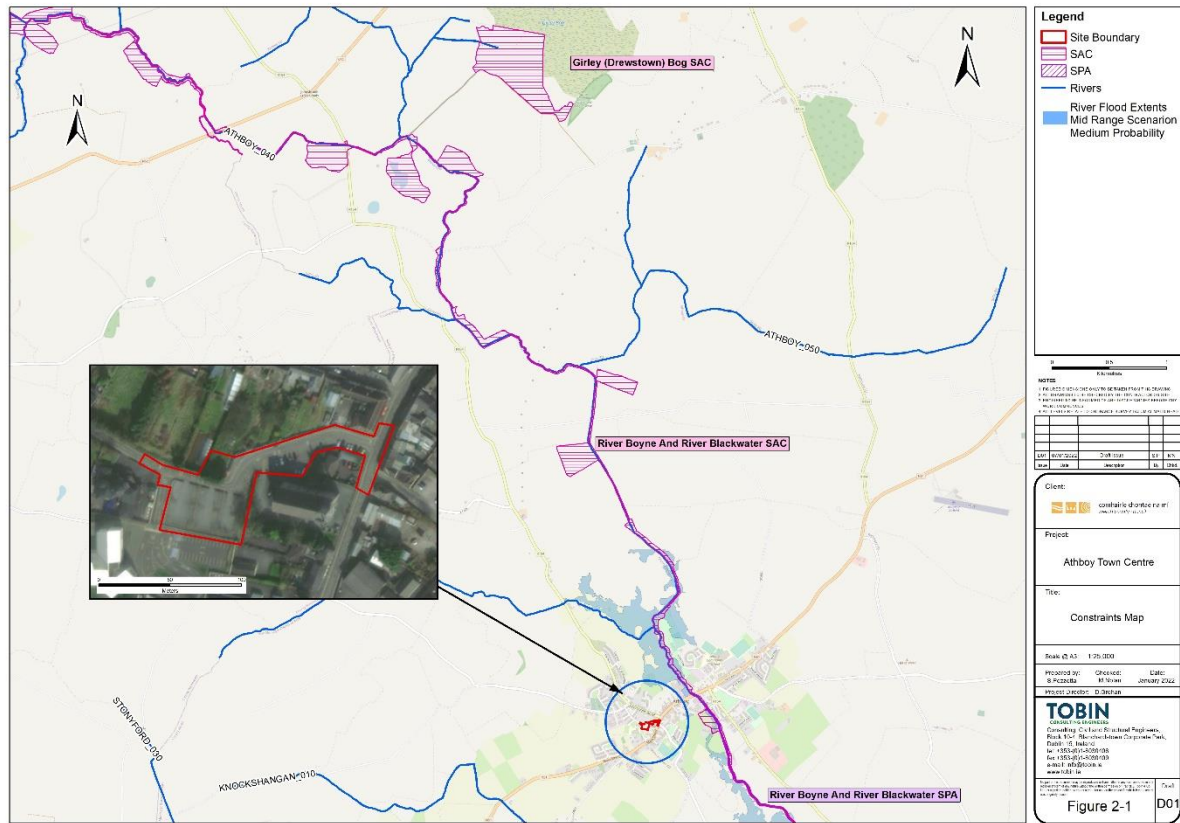


Figure 2-1: Constraints

River Boyne and River Blackwater SAC

The River Boyne and River Blackwater SAC comprises the freshwater elements of the River Boyne, the River Blackwater, and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth.

This SAC is selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive:

- Alkaline Fens [7230],
- Alluvial Forests*[91E0](priority),
- River Lamprey (*Lampetra fluviatilis*) [1099],
- Atlantic Salmon (*Salmo salar*) [1106], and
- Otter (*Lutra lutra*) [1355]

The underlying geology is mostly Carboniferous Limestone. In the vicinity of Kells, Silurian Quartzite is present, while close to Trim are Carboniferous Shales and Sandstones. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime.

Plants of interest include; Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic stoneworts (*Chara spp.*) which are characteristic of calcareous wetlands. The rare plant Round-leaved Wintergreen (*Pyrola*

rotundifolia) occurs around Newtown Lough. This species is listed in the Red Data Book and this site represents its only occurrence in Co. Meath.

Wet willow woodland (WN6) fringes many stretches of the Boyne and the dominant habitat along the edges of the river is freshwater marsh (GM1), with many plant species occurring, including Fen Bedstraw (*Galium uliginosum*), a scarce species mainly confined to marshy areas in the midlands and is common in this vegetation. Swamp Meadow-grass (*Poa palustris*), a rare species listed in the Red Data Book, also occurs in this SAC and has been recorded among freshwater marsh vegetation on the banks of the Boyne. Round-Fruited Rush (*Juncus compressus*) is found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland. Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reeds swamp, weedy waste ground, scrub, hedges, drainage ditch and canal.

The Atlantic Salmon (*Salmo salar*) uses the tributaries and headwaters of this SAC as spawning grounds. This species is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. The River Boyne is a designated Salmonid Water under the E.U. Freshwater Fish Directive. This site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive which it supports, namely River Lamprey (*Lampetra fluviatilis*), which is present in the lower reaches of the Boyne River, and Otter (*Lutra lutra*), which can be found throughout the site.

Mammals present which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals, with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act, 1976. In addition to this, Whooper Swans (*Cygnus cygnus*) winter regularly at several locations along the Boyne and Blackwater Rivers. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

River Boyne and River Blackwater SPA

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries. Most of the site is in Co. Meath, but it also extends into counties Cavan, Louth and Westmeath. The site includes the river channel and marginal vegetation. Most of the site is underlain by Carboniferous Limestone but, as mentioned, Silurian Quartzite also occurs in the vicinity of Kells and Carboniferous Shales and Sandstones close to Trim.

The River Boyne and River Blackwater SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive. Other species which occur within the site include; Mute Swan (*Cygnus olor*), Teal (*Anas crecca*), Mallard (*Anas platyrhynchos*), Cormorant (*Phalacrocorax carbo*), Grey Heron (*Ardea cinerea*), Moorhen (*Gallinula chloropus*), Snipe (*Gallinago gallinago*) and Sand Martin (*Riparia riparia*).

Girley (Drewstown) Bog SAC

Girley (Drewstown) Bog SAC is a site of considerable conservation significance as it comprises a raised bog, which is a rare habitat in the E.U. and one that is becoming increasingly scarce and under threat in Ireland. Girley (Drewstown) Bog SAC occurs within the larger raised bog system that is designated as Girley Bog NHA (Site Code: 001580). The site is designated as a SAC for the following habitat: Degraded Raised Bog [7120], and includes both areas of high bog and

cutover bog. Degraded Raised Bog corresponds to those areas of high bog where the hydrology has been adversely affected by peat cutting, drainage and other land use activities, but which are capable of regeneration to Active Raised Bog (7110) within 30 years.

Girley (Drewstown) Bog SAC consists of 32.26 ha of raised bog (15.05 ha of high bog and 17.21 ha of cutover bog) which occupies the south-western part of Girley Bog NHA. Girley Bog is a Midland type raised bog developed in a basin. The area of this bog has greatly reduced since the 1800's due to turf-cutting.

As a result of rehabilitation projects (including the Coillte EU LIFE Project), raised bog vegetation has returned to the wetter areas of the high bog. Hare's-tail Cottongrass (*Eriophorum vaginatum*) dominates these wet hollows with Bilberry (*Vaccinium myrtillus*), Heather (*Calluna vulgaris*) and Cross-leaved Heath (*Erica tetralix*) along with Bog Rosemary (*Andromeda polifolia*) and Cranberry (*Vaccinium oxycoccos*). Bog mosses that are regenerating include; *Sphagnum subnitens*, *Sphagnum capillifolium* and *Sphagnum*, forming low hummocks with *Sphagnum recurvum* in drains. Overall, the high bog appears to be re-wetting and limited areas of wet flats and hummock/hollows have developed. However, the majority of the restored areas have not yet developed vegetation characteristic of the wettest conditions and there is a considerable amount of conifer and birch regeneration occurring in these areas. Remaining active drains, fires and illegal dumping further threaten the integrity of this habitat and its hydrological status.

2.1.2.2 Protected Species

A desktop review was carried out in December 2021, of the NBDC protected species distribution data for the hectad which encompasses the proposed application area (a 10x10km square with associated unique letter code based on Irish National Grid Coordinate System; N76). The results are presented in Table 2-1.

Table 2-1: National Biodiversity Data Centre Records of Protected Species Located in Proximity to the Proposed Application Area

Species name	Record count	Date of last record	Title of dataset	Designation
Common frog (<i>Rana temporaria</i>)	17	17/10/2020	Amphibians and reptiles of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Barn Owl (<i>Tyto alba</i>)	4	29/12/2020	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Barn Swallow (<i>Hirundo rustica</i>)	25	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Black-headed Gull (<i>Larus ridibundus</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Common Coot (<i>Fulica atra</i>)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Grasshopper Warbler (<i>Locustella naevia</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Kestrel (<i>Falco tinnunculus</i>)	12	22/07/2015	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Kingfisher (<i>Alcedo atthis</i>)	13	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Linnet (<i>Carduelis cannabina</i>)	13	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Pheasant (<i>Phasianus colchicus</i>)	22	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Common Snipe (<i>Gallinago gallinago</i>)	14	13/04/2016	Birds of Ireland	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds

Species name	Record count	Date of last record	Title of dataset	Designation
				of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Starling (<i>Sturnus vulgaris</i>)	27	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Swift (<i>Apus apus</i>)	5	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Wood Pigeon (<i>Columba palumbus</i>)	29	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Corn Crake (<i>Crex crex</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Eurasian Curlew (<i>Numenius arquata</i>)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Eurasian Teal (<i>Anas crecca</i>)	1	01/04/2010	Kingfisher Survey 2010	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Eurasian Tree Sparrow (<i>Passer montanus</i>)	8	24/10/2015	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Eurasian Woodcock (<i>Scolopax rusticola</i>)	4	13/04/2016	Birds of Ireland	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
European Golden Plover (<i>Pluvialis apricaria</i>)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List

Species name	Record count	Date of last record	Title of dataset	Designation
Great Cormorant (<i>Phalacrocorax carbo</i>)	2	01/04/2010	Kingfisher Survey 2010	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Grey Partridge (<i>Perdix perdix</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Grey Plover (<i>Pluvialis squatarola</i>)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
House Martin (<i>Delichon urbicum</i>)	15	13/04/2016	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
House Sparrow (<i>Passer domesticus</i>)	27	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Little Grebe (<i>Tachybaptus ruficollis</i>)	3	31/07/1991	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Mallard (<i>Anas platyrhynchos</i>)	20	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Merlin (<i>Falco columbarius</i>)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Mute Swan (<i>Cygnus olor</i>)	5	20/04/2010	Kingfisher Survey 2010	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Northern Lapwing (<i>Vanellus vanellus</i>)	6	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Peregrine Falcon (<i>Falco peregrinus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species
Red Grouse (<i>Lagopus lagopus</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species:

Species name	Record count	Date of last record	Title of dataset	Designation
				EU Birds Directive >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Rock Pigeon (<i>Columba livia</i>)	7	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
Sand Martin (<i>Riparia riparia</i>)	10	10/07/2020	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Sky Lark (<i>Alauda arvensis</i>)	13	19/06/2015	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Spotted Flycatcher (<i>Muscicapa striata</i>)	11	27/06/2020	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Stock Pigeon (<i>Columba oenas</i>)	10	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Whooper Swan (<i>Cygnus cygnus</i>)	1	03/01/2021	Birds of Ireland	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Yellowhammer (<i>Emberiza citrinella</i>)	18	17/03/2020	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Fir Clubmoss (<i>Huperzia selago</i>)	1	06/01/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V
Common Lizard (<i>Zootoca vivipara</i>)	3	06/09/2020	Amphibians and reptiles of Ireland	Protected Species: Wildlife Acts
Daubenton's Bat (<i>Myotis daubentonii</i>)	94	20/08/2014	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Eurasian Badger (<i>Meles meles</i>)	47	31/12/2016	Badger Setts of Ireland Database	Protected Species: Wildlife Acts
European Otter (<i>Lutra lutra</i>)	8	30/09/2010	Atlas of Mammals in Ireland 2010-2015	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Lesser Noctule (<i>Nyctalus leisleri</i>)	14	14/07/2014	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts

Species name	Record count	Date of last record	Title of dataset	Designation
Pine Marten (<i>Martes martes</i>)	1	09/04/2009	Atlas of Mammals in Ireland 2010-2015	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	115	12/08/2014	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	23	12/08/2014	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
West European Hedgehog (<i>Erinaceus europaeus</i>)	1	24/06/2020	Hedgehogs of Ireland	Protected Species: Wildlife Acts

2.1.2.3 Invasive Species

A desktop review was also carried out in December 2021, of the National Biodiversity Data Centre (NBDC) high impact invasive species distribution data for the N76 hectad. The results are presented in Table 2-2.

Table 2-2: National Biodiversity Data Centre Records of High Impact Invasive Species within a 10km Radius of the Proposed Application Area

Species name	Record count	Date of last record	Title of dataset	Designation
Cherry Laurel (<i>Prunus laurocerasus</i>)	1	25/05/2005	Species Data from the National Vegetation Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species
<i>Rhododendron ponticum</i>	2	27/09/2020	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
American Mink (<i>Mustela vison</i>)	1	08/04/1992	Badger and Habitats Survey of Ireland	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Brown Rat (<i>Rattus norvegicus</i>)	1	24/10/2013	Atlas of Mammals in Ireland 2010-2015	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Eastern Grey Squirrel (<i>Sciurus carolinensis</i>)	2	31/12/2012	Irish Squirrel Survey 2012	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
European Rabbit (<i>Oryctolagus cuniculus</i>)	5	08/09/2013	Atlas of Mammals in Ireland 2010-2015	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species

2.1.3 Assessment and Recommendations

The EU Habitats Directive requires an 'Appropriate Assessment' (AA) to be carried out where a project is likely to have a significant impact on a European site. Given the proximity of the proposed application area to European sites, an AA Screening Report will likely be required. It is also recommended that prior to the commencement of works, a qualified and experienced Ecologist should survey the proposed application area to check for protected species that may be present.

From the results of the desktop review, considering the proposed application area is located in an urban area of low ecological value and is outside of the boundary of any designated sites, it is determined that this site is likely to be suitable for development from an ecological perspective.

2.2 GROUNDWATER AND SURFACE WATER

This section identifies the hydrological and hydrogeological background of the site. This assessment was undertaken using the following sources of information:

- Environmental Protection Agency (EPA) and Water Framework Directive (WFD) online water maps⁹;
- EPA water quality data¹⁰;
- Office of Public Works (OPW) online flood mapping¹¹; and
- Geological Survey of Ireland (GSI) hydrogeology datasets¹².

2.2.1 Groundwater

The Geological Survey of Ireland (GSI) online database was consulted for available hydrogeological information for the proposed development area.

The aquifer potential of a bedrock unit is determined by the groundwater productivity. The productivity is determined based on hydraulic characteristics compiled from borehole data throughout the county.

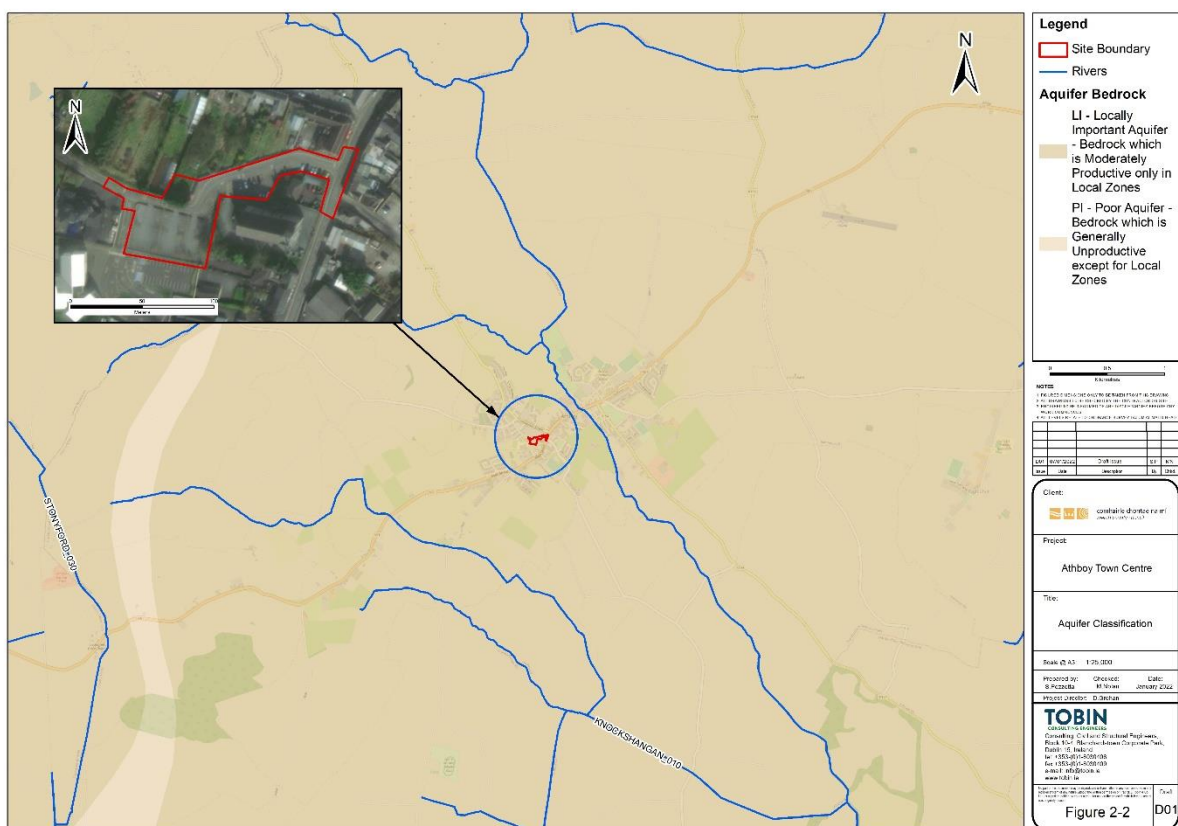


Figure 2-2: Aquifer Classification

Figure 2-2 shows the proposed application area is underlain by a Locally Important Aquifer - Bedrock which is moderately productive only in local zones. There are no karst features within the proposed application area.

Groundwater vulnerability represents the intrinsic geological and hydrogeological characteristics that determine how easily groundwater may be contaminated by activities at the surface. Vulnerability depends on the quantity of contaminants that can reach the groundwater,

⁹ <https://gis.epa.ie/>

¹⁰ <https://www.catchments.ie/>

¹¹ <https://www.floodinfo.ie/>

¹² <https://www.gsi.ie/>

the time taken by water to infiltrate to the water table and the attenuating capacity of the geological deposits through which the water travels.

Figure 2-3 highlights that the entire site is underlain by an existing highly vulnerable groundwater aquifer.

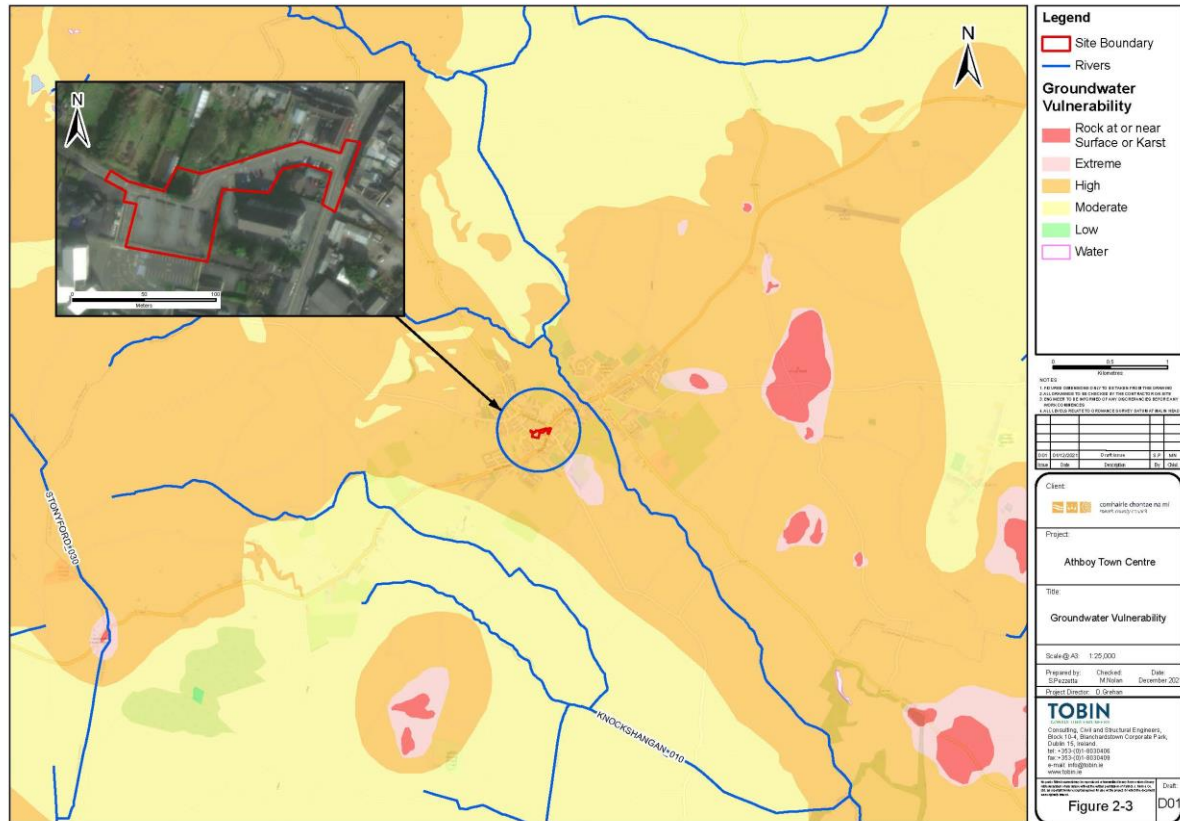


Figure 2-3: Groundwater Vulnerability

Athboy public water supply is served by two local boreholes (see Figure 2-2), 1 no. located approximately 500m northeast of the proposed application area, the other located approximately 1.3km southeast of the area. These supply wells are managed by Irish Water and there are additional drinking water abstraction points further downgradient on the River Boyne. The site is not located within a groundwater Source Protection Zone. The groundwater source protection area for this public water supply is located approximately 600m east of the proposed application area and comprises an area of approximately 1.7km² (inner and outer protection areas inclusive).

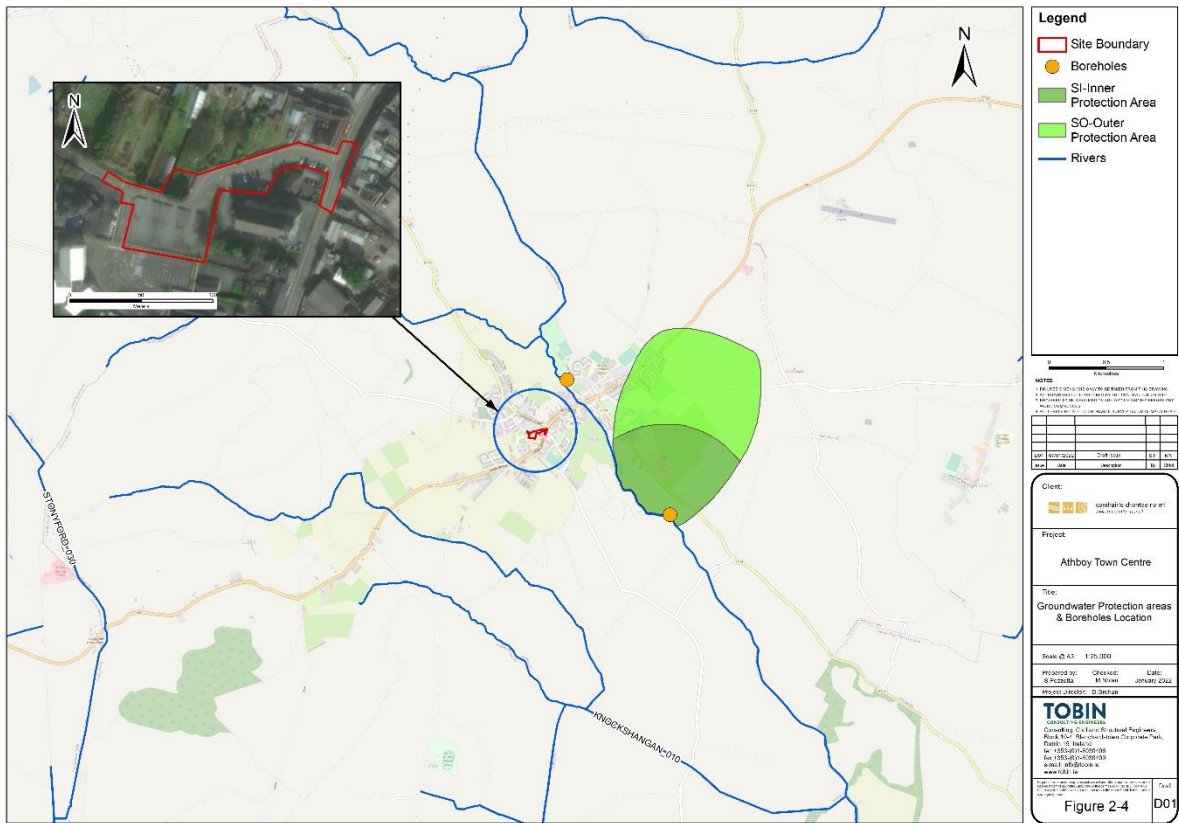


Figure 2-4: Groundwater Vulnerability.

As the site is not located with the source protection zone, no further groundwater measures are proposed.

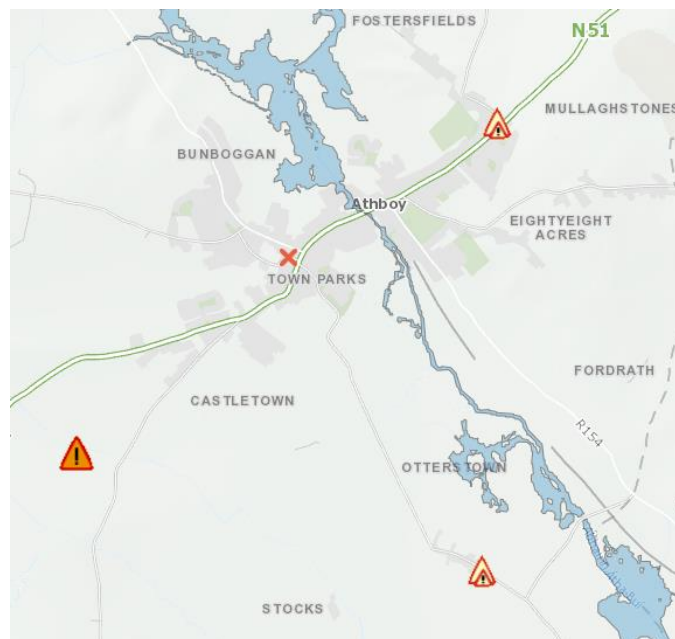
2.2.2 Surface Water

Since 2000, the Water Framework Directive (WFD) (WFD, 2000/60/EC) has directed water management in the EU. The EU Water Framework Directive (2000/60/EC) (WFD) establishes a framework for the protection, improvement and management of surface waters and groundwaters. The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all water bodies (surface waters including rivers, lakes, transitional and coastal, as well as groundwater) and to protect, enhance and restore all waters with the aim of achieving at least 'Good' status.

There are no watercourses within the proposed application area, this is shown in Figure 2-1. The river Athboy is located approximately 400m North-East of the study area. These nearby downgradient sections of the Athboy river are classified by the WFD as 'At Risk' with 'Moderate' ecological status.

A review was also carried out of the OPW Flood Maps website. The mapping identifies areas and flood points which may be at risk from flooding based on historical flood events and reports. Figure 2-5 illustrates the modelled extent of land that might be flooded by a river in a severe flood event. Medium Probability flood events have approximately a 1-in-a-100 chance of occurring or being exceeded in any given year. This is also referred to as an Annual Exceedance Probability (AEP) of 1%. It also identifies areas which may be at risk from flooding based on historical flood events and reports. There is no evidence of historical flooding events recorded within the study area. There is a recording of:

- A recurring flood event approximately 1.5km North-East of the study area at Mullaghstones N51;
- A recurring flood event approximately 2km South-East of the study area at Kildarkey Rd CR343; and
- A flood event approximately 2.5km South-West of the study area at Boyne Catchment Castletown Athboy dated 15/08/2008.



Source: (Floodinfo.ie)

Figure 2-5: Flood Events

There are no areas of Coastal/Tidal Risk identified in the OPW Maps for the proposed application area.

Due to the downgradient sections of the Athboy river being classified as 'At Risk' waterbodies, consideration should be given to on-site mitigation measures that can be put in place during the construction and operational phases of the development (eg. silt traps, temporary/permanent drainage systems, halting construction activities during heavy rainfall events, etc.). A site-specific assessment and the identification of adequate protection measures should be undertaken by appropriately qualified persons.

2.3 CULTURAL HERITAGE CONSTRAINTS

The following section examines both the archaeological and architectural heritage of the proposed application area and provides an introduction to the various sites identified to the proposed application area highlighted in Figure 2-6.

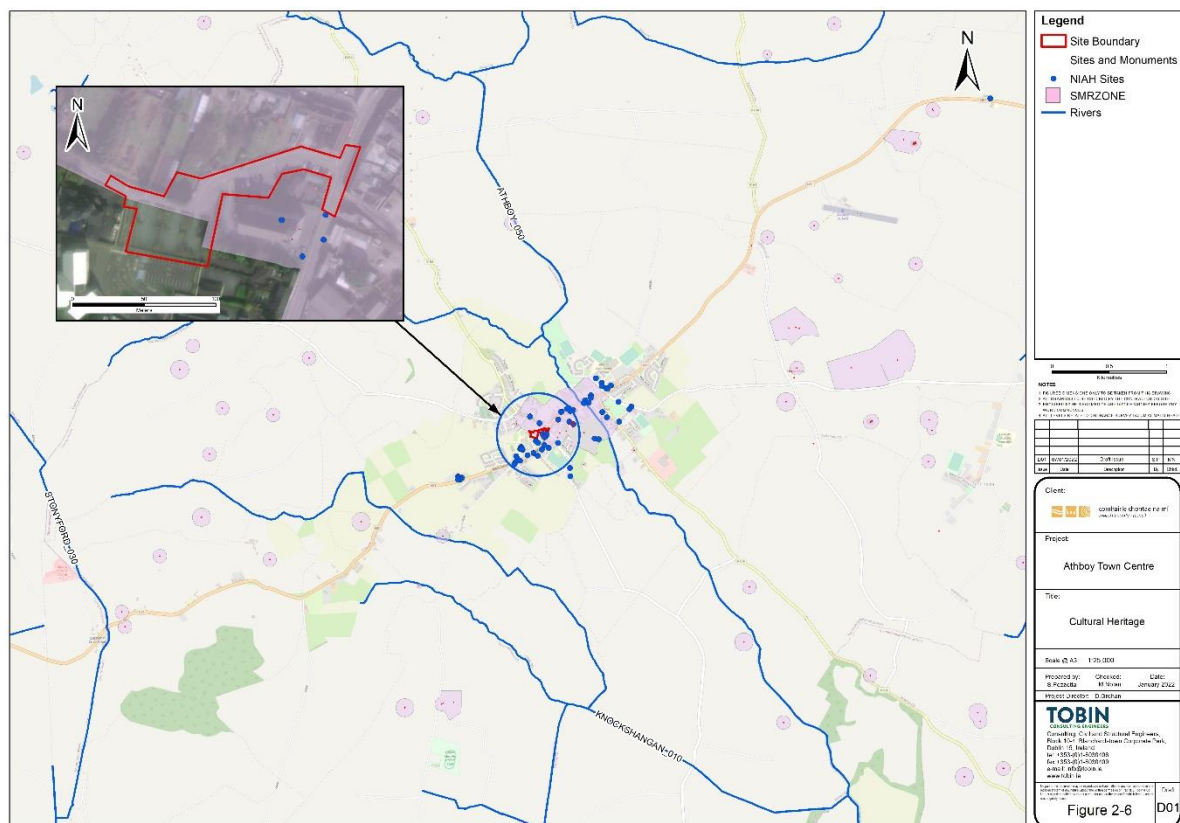


Figure 2-6: Cultural heritage

The Athboy Town Centre Project is located within the Urban Area of Athboy and is surrounded by existing and ongoing development.

The Study Area is situated within the Athboy Historic Town overall archaeological zone and adjoins the lands of St. James' Catholic Church which has been identified as a building and lands containing notable architectural heritage and which have 'Protection under the Record of Protected Structures' under the Planning and Development Act 2000. The proposed scheme also bounds the Athboy Architectural Conservation Area. Engagement with Meath County Council Archaeology and Heritage sections will be essential to ensure that any proposed design elements express a strong sympathy with the existing architectural heritage of the area.

National Monuments

There are no national monuments within the proposed application area. There is one national monument located approximately 25m South of the proposed application area.

National Inventory of Architectural Heritage

There are no national inventory of architectural heritage (NIAH) sites located within the proposed application area. As stated above, St. James' Catholic Church and its boundary wall are the only NIAH in close proximity to the Study Area. Meath County Council advised the following:



- 1990's Wall can be removed, a new wall could take its place in a new alignment, the preference would be for Estate Style Fencing with a hedge behind which would make a more green and pleasant setting for the church, if a wall is decided upon, render is preferable to stone as a new stone wall will only clash with the existing stone church.

Figure 2-6: St. James' Catholic Church 1900's wall

- The more historic wall c.1845 to the rear of the church has scope for a new entrance, vehicular or pedestrian, but any new piers should be the same level as the wall, with a curved haunching/capping as per the existing wall.



Figure 2-8: St. James' Catholic Church 1845 wall

Given that the subject site is located partially within the zone of archaeological potential for the historic town of Athboy there remains a possibility that archaeological materials or features may be encountered. It is recommended that archaeological monitoring of engineering trial pits and trenches be carried out by a suitably qualified archaeologist.

A Cultural Heritage Impact Assessment was undertaken for the proposed development and includes a description of direct, physical impacts to the archaeological, architectural and cultural heritage of the surrounding environment. Section 4 of that report details a number of recommendations to reduce and mitigate against impacts associated with the proposed development.

3.0 CONCLUSION

Based on the above criteria, the relevant TOBIN specialists have carried out a preliminary assessment of the preferred new bus stop study area within Athboy Town centre and have not identified any significant planning or environmental issues that might impact on the submission of a planning application. It is assumed that a standalone AA Screening Assessment will accompany the application.

This conclusion is based on a preliminary overview of a number of high-level parameters and assumes that any additional constraints identified in the future will be assessed in greater detail, including the identification of potential impacts and best practice mitigation measures, where relevant.

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