

# Town & Country

RESOURCES LIMITED

PLANNING AND DEVELOPMENT CONSULTANTS

Senior Administrative Officer,  
Planning Department,  
Clare County Council,  
New Road,  
Ennis,  
County Clare,  
V95 DXP2.

30<sup>th</sup> December 2022

**Re: Draft Clare County Development Plan 2023-2029  
Amendments Stage Submission re Lands at Kilkee, County Clare.**

Dear Sir/Madam,

Town & Country Resources Limited, Planning & Development Consultants, Hawthorn, Breskamore, Clarina, Limerick are instructed by Declan Cunningham, [REDACTED] [REDACTED] [REDACTED] [REDACTED] to make this submission in response to the Proposed Material Alterations to the Draft Clare County Development Plan 2023-2029, published by Clare County Council on 25<sup>th</sup> November 2022.

This submission relates to the Material Alteration proposed to the **Kilkee Land Use Zoning Map**, as outlined at page 71 of *Volume 3d – West Clare Municipal District Settlement Plans Proposed Amendments*.

## 1.0 Introduction

Our client owns lands comprising some 15.75 hectares overall at Well Road, Kilkee, County Clare, as shown on Ordnance Survey based map attached. The lands owned include the existing *Cunningham's Holiday Park* which provides 180 mobile home berths for holiday accommodation annually over the season April-October. The holiday park has been in operation for some 45 years. The subject lands, excluding the existing holiday park site comprises 11.85 hectares approx. and extend between Well Road to the south and Dunlickey Road to the north, see Figure 1 below.

## 2.0 Kilkee Settlement Plan - Land Use Zoning Map, Chronology of Land Use Zoning

### 2.1 Zoning Clare County Development Plan 2017-2023

The Kilkee Settlement Plan Land Use Zoning Map as contained in the current Clare County Development Plan 2017-2023 identifies that the subject lands are zoned for 'Tourism' purposes (Site TOU 11) and 'Low Density Residential Purposes' (Site LDR 6), see Figure 2 below.

[REDACTED]  
[REDACTED]

Breska, Clarina, County Limerick

[REDACTED]  
[REDACTED]

## **2.2 Zoning Draft Clare County Development Plan 2023-2029**

The Kilkee Settlement Plan Land Use Zoning Map as contained in the Draft Clare County Development Plan 2023-2029 presents a change in the zoning of the lands, see figure 3 below. The zoning map identifies the subject lands as zoned for 'Tourism' purposes (Site TOU 5), 'Residential Purposes' (Site R4 and R5) and 'Strategic Residential Reserve' (Site SR1).

## **2.3 Zoning Draft Clare County Development Plan 2023-2029 Proposed Amendments**

The Kilkee Settlement Plan Land Use Zoning Map as contained in the Draft Clare County Development Plan 2023-2029 Proposed Amendments indicates that the Planning Authority proposes to change the zoning of a portion of the 'Strategic Residential Reserve' (Site SR1) lands and a portion of the Tourism lands (Site TOU 5) adjoining to 'Buffer Space' zoning, see figure 4 below. The area in question amounts to 0.16ha approx..

At section 19.4 of the Draft Development Plan, *Buffer Space Zoning* is defined :

*'Buffer Spaces are intended to provide a buffer of undeveloped land for the conservation of biodiversity, visual amenity or green space. Buffer spaces may include natural features such as floodplains, riparian zones, turloughs, valuable biodiversity areas including designated sites, amenity areas, woodlands, hedgerows, greenspaces and archaeological features.'*

## **2.4 Planning Authority Justification for Change in Zoning**

The Chief Executive's Report (CE Report) to the Elected Members on submissions received on the Draft Plan dated 10<sup>th</sup> July 2022 provides an insight into the Planning Authority's justification for the proposed amendment affecting our client's lands. At pages 300-301 of the CE Report, a response and a recommendation to Submission No. S2/901 is outlined, see the relevant extract in full attached to this submission. In summary, the amendment is in direct response to a submission by third parties alleging a flood risk at the subject lands, and a brief appraisal of the submission by the Council's Flooding Consultant, which concludes :

*'The lower (southern) part of the site is vulnerable to inundation from the Well Stream, and is identified to form part of the Kilkee FRS options. It is recommended that this lower part of the site is rezoned to a water compatible use and not developed.'*

## **2.5 Declan Cunningham Requests Clare County Council to Reject the Proposed Amendment to the Kilkee Settlement Plan Zoning Map**

The Planning Authority will be aware that Mr. Cunningham applied for planning permission for development comprising an extension of the existing holiday park on land including the subject lands in 2021 (Reg. Ref. 21/355). Planning permission was refused on 4<sup>th</sup> April 2022 for 2 reasons, including a concern on the part of the Planning Authority regarding the flood risk status of the lands.

Mr. Cunningham is fully committed to pursuing this important proposal for additional tourist accommodation in Kilkee. In doing so, Mr. Cunningham is committed to undertaking whatever detailed surveys and analyses are required, including site-specific flood risk assessment, to ensure that a future application for additional tourist accommodation at the subject lands can proceed in full compliance with the Flood Risk Guidelines (2009). In this regard, Mr. Cunningham undertakes to wait on the conclusion of the Development Plan review process before making a new planning application for development at his lands.

In the interim and in order to prepare a fully informed and technical appraisal of the proposed amendment to the Draft Development Plan affecting his lands, Mr. Cunningham has engaged the services of a competent technical expert, specialist in flood risk assessment. Dr. Colin O'Reilly, Envirollogic has undertaken a thorough appraisal of the subject lands and the flood risk status of the lands.

We request the Planning Authority to refer to the enclosed report 'Hydrological Appraisal' prepared by Dr. O'Reilly in its consideration of our client's submission.

In summary, the detailed and technical Hydrological Appraisal of the proposed zoning amendment confirms that Clare County Council must not adopt the proposed material amendment to the Draft Development Plan as detailed in the Kilkee Settlement Plan Map, published on 28<sup>th</sup> November 2022.

The Planning Authority is requested to adopt the land use zoning objectives affecting our client's lands as detailed in the Kilkee Settlement Plan Land Use Zoning Map included at page 51, Volume 3d, of the Draft Clare County Development Plan, published on 10<sup>th</sup> December 2021.

We trust that the points raised in the submission will be taken into account by Clare County Council in its review of the Proposed Material Amendments to the Draft Clare County Development Plan 2023-2029.

Yours sincerely,



Dianne McDonogh

**Town & Country Resources Limited**  
**Planning & Development Consultants**

# Land Registry Compliant Map

**CENTRE COORDINATES:**  
ITM 487794,659633

**ORDER NO.:**  
50155083\_1

**PUBLISHED:**  
13/11/2020

**MAP SERIES:**  
1:1,000  
1:2,500  
1:2,500

**MAP SHEETS:**  
4604-25  
4664-B  
4665-A

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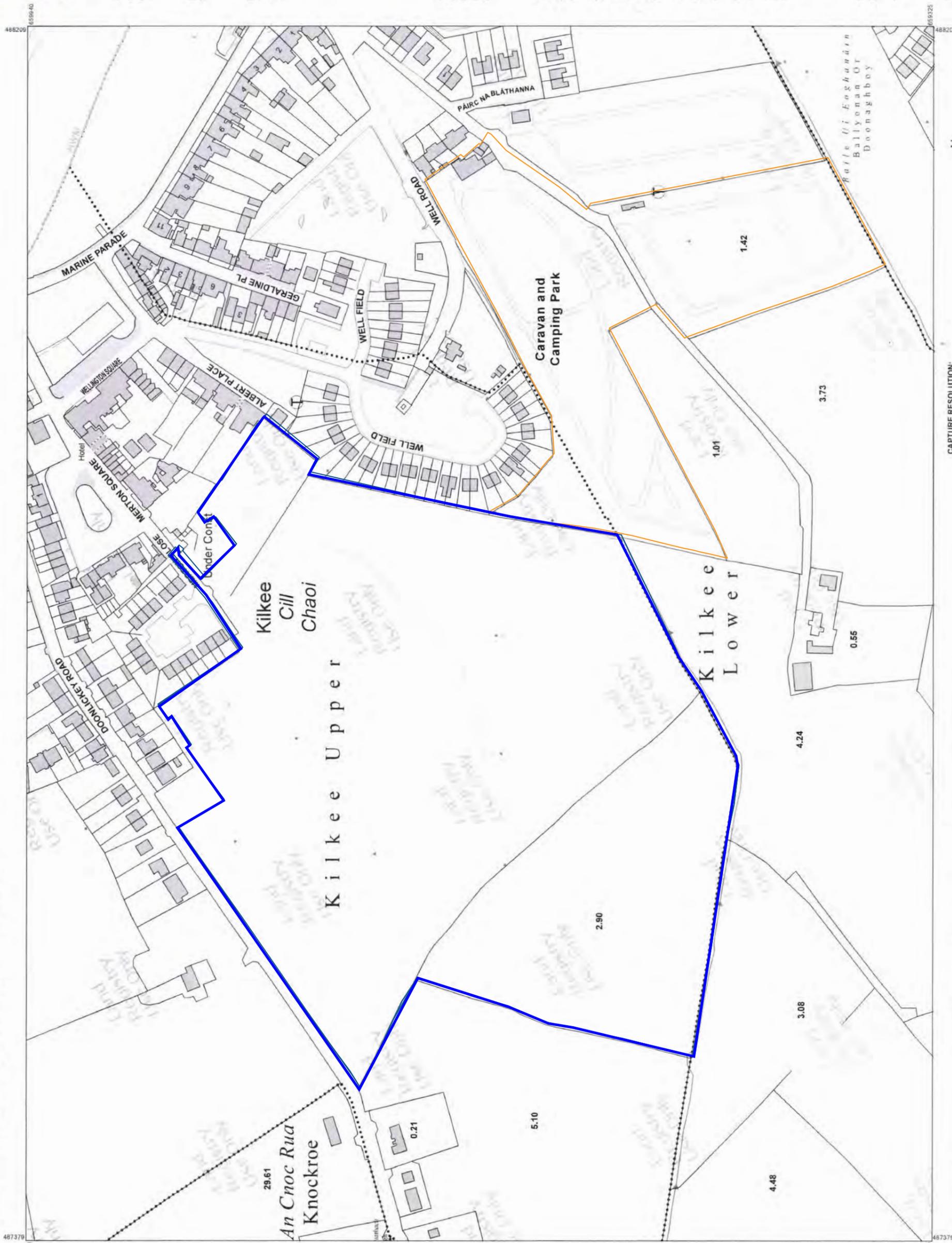
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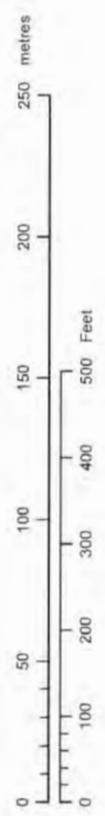
<http://www.osi.ie>,  
search 'Large Scale Legend'

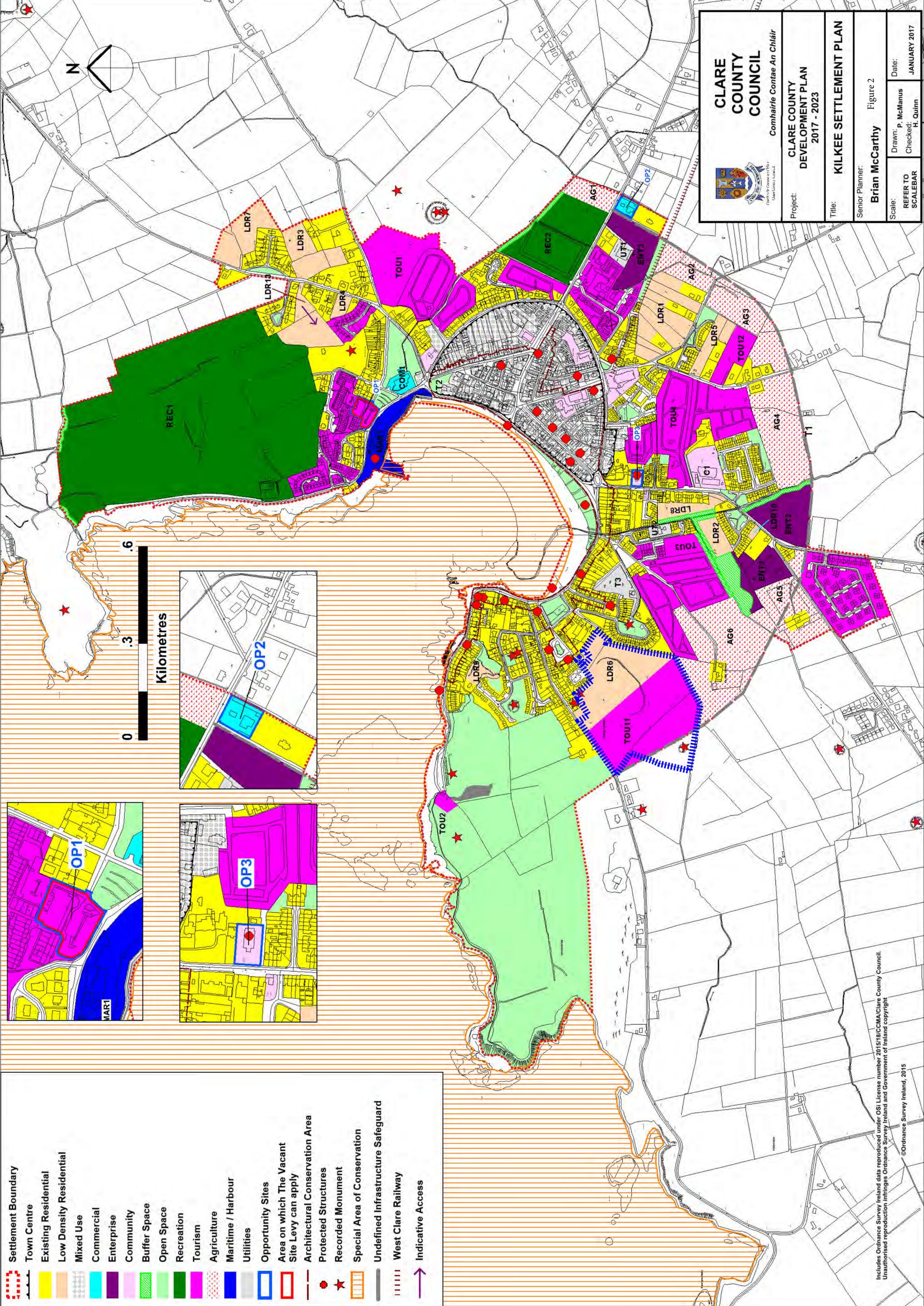
Figure 1



**CAPTURE RESOLUTION:**  
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Output scale is not indicative of data capture scale.  
Further information is available at  
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**OUTPUT SCALE: 1:2,500**





**CLARE COUNTY COUNCIL**  
Comhairle Contae An Chláir

**CLARE COUNTY DEVELOPMENT PLAN 2017 - 2023**

**KILLEE SETTLEMENT PLAN**

Senior Planner: **Brian McCarthy** Figure 2

Project: **CLARE COUNTY DEVELOPMENT PLAN 2017 - 2023**

Title: **KILLEE SETTLEMENT PLAN**

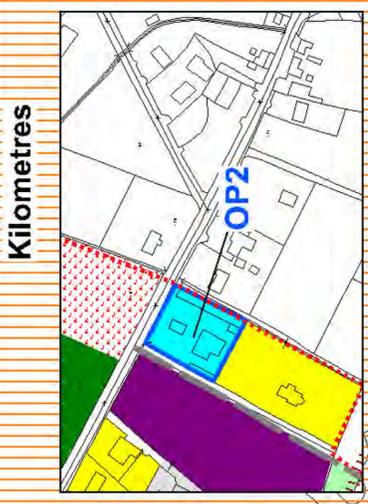
Scale: REFER TO SCALEBAR

Drawn: P. McManus

Checked: H. Quinn

Date: JANUARY 2017

- Settlement Boundary
- Town Centre
- Existing Residential
- Low Density Residential
- Mixed Use
- Commercial
- Enterprise
- Community
- Buffer Space
- Open Space
- Recreation
- Tourism
- Agriculture
- Maritime / Harbour
- Utilities
- Opportunity Sites
- Area on which The Vacant Site Levy can apply
- Architectural Conservation Area
- Protected Structures
- Recorded Monument
- Special Area of Conservation
- Undefined Infrastructure Safeguard
- West Clare Railway
- Indicative Access





- Legend**
- Settlement Boundary
  - Town Centre Area
  - Opportunity Site
  - Built and Natural Heritage
  - Protected Structure
  - Recorded Monuments
  - Architectural Conservation Area
  - Special Area of Conservation
  - Indicative Access
  - One Way
  - Road and Rail Infrastructure
  - Infrastructure
  - Safeguard (Undefined) Pedestrian and Cycle Infrastructure
  - West Clare Railway Greenway
  - Land Use Zoning
  - Mixed Use
  - Commercial
  - Existing Residential
  - Residential
  - Strategic Residential Reserve
  - Community
  - Buffer Space
  - Open Space
  - Recreation
  - Tourism
  - Maritime / Harbour
  - Enterprise
  - Utilities
  - Agriculture
  - Car Parks

Draft Clare County Development Plan 2023 - 2029

**Kilkee**

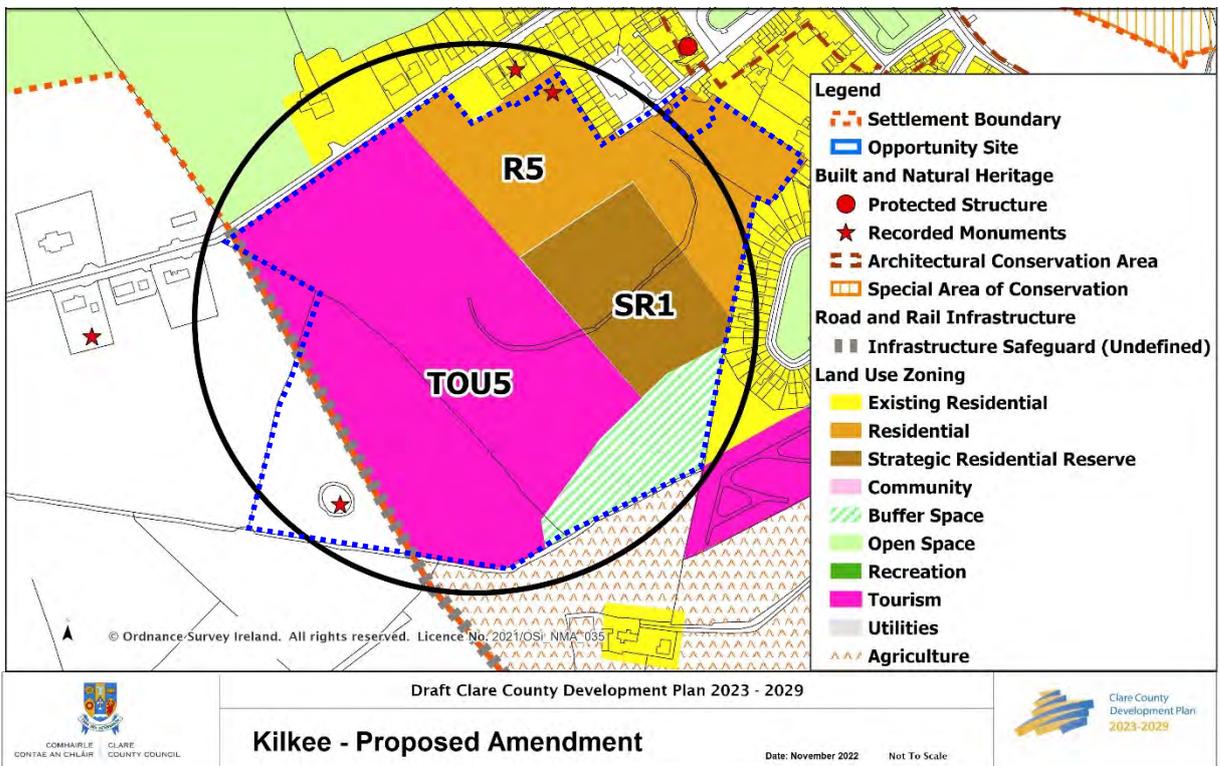
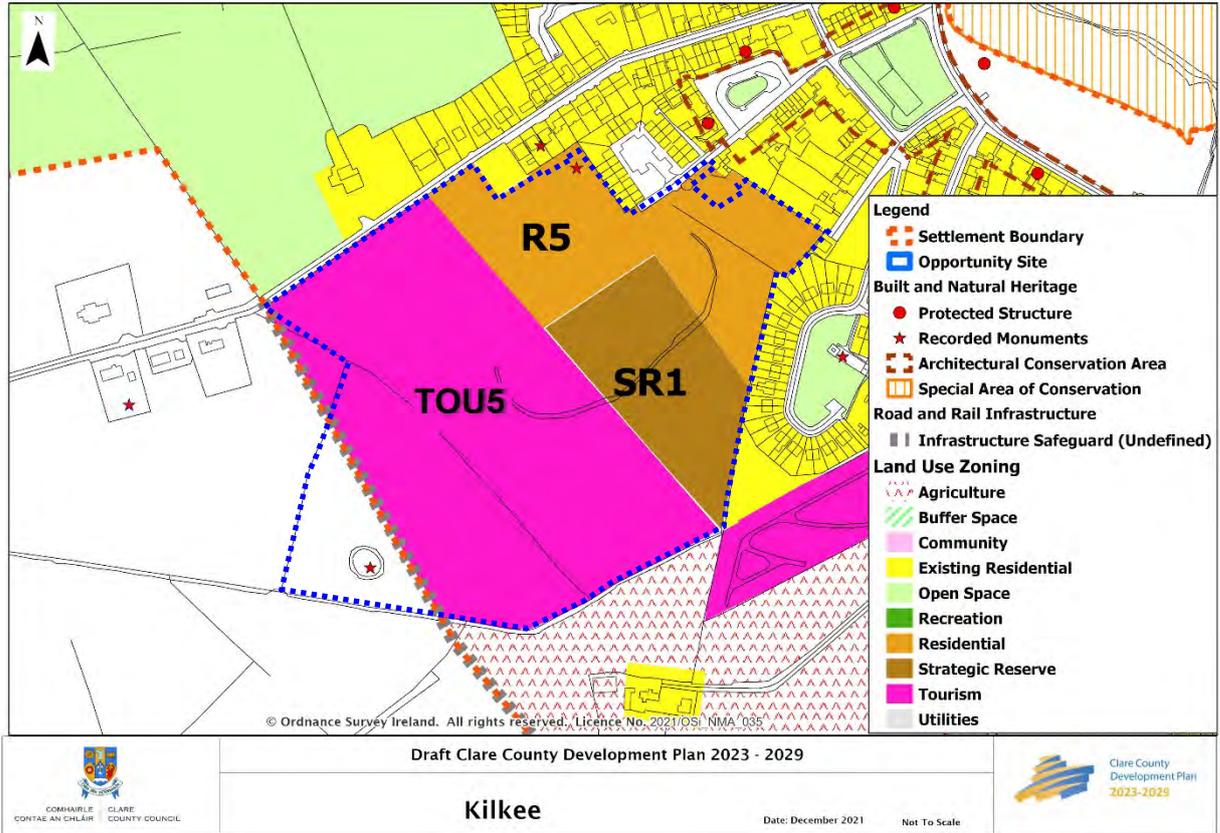


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Figure 3

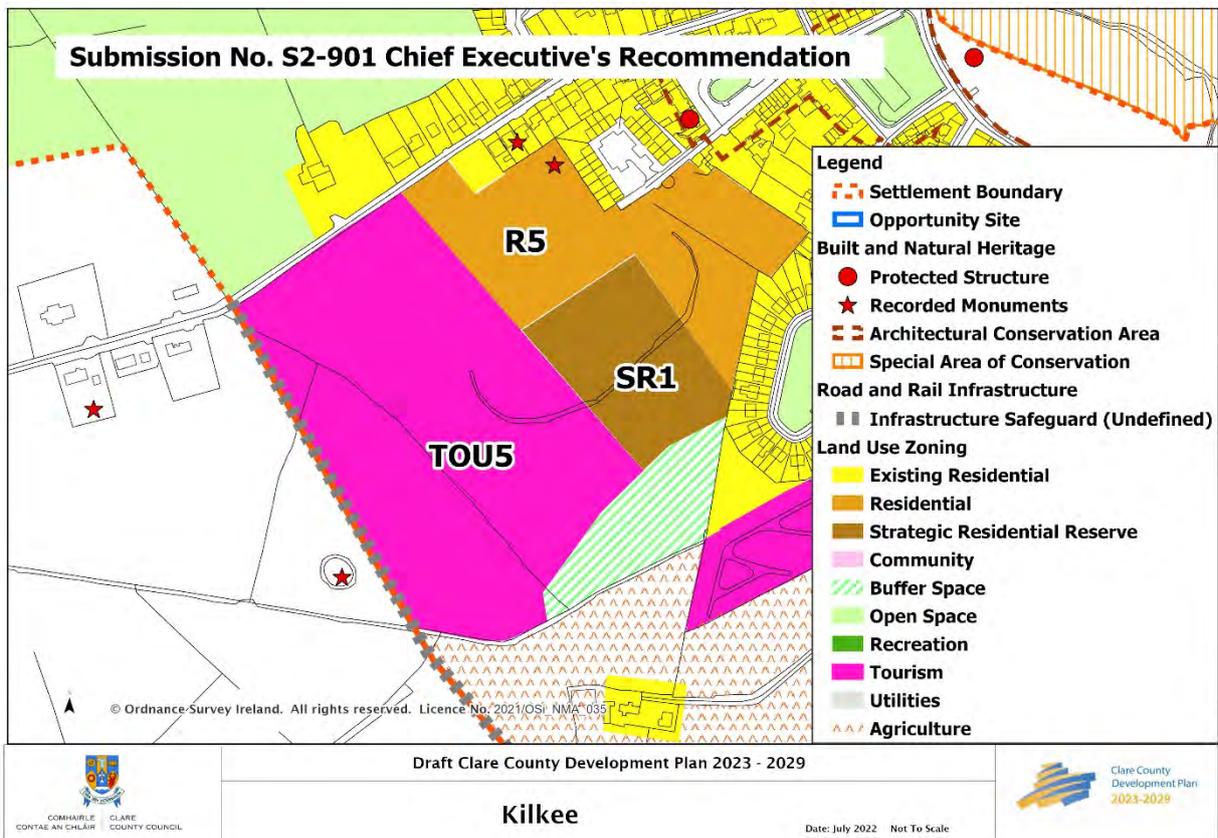
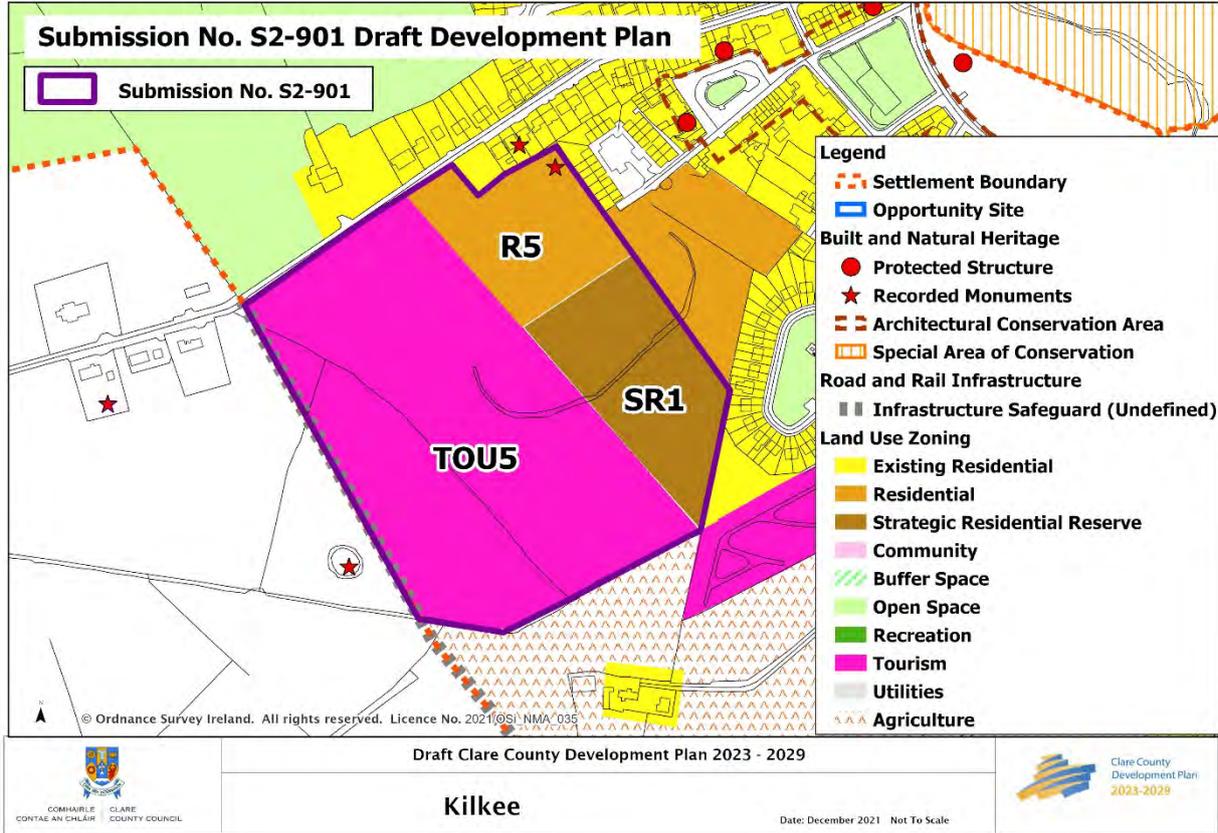


<b>Submission No: S2/901 –Kevin Heenan &amp; Joseph McCloskey</b>	
<b>Relevant Chapters / Topics</b>	<ul style="list-style-type: none"> <li>• Kilkee</li> <li>• Zoning</li> <li>• Tourism</li> <li>• Flooding</li> </ul>
<b>Summary of Issues Raised in Submission</b>	
<ul style="list-style-type: none"> <li>• Submission concerns the ‘Track Field’ in Kilkee, which is zoned in the draft CDP for Tourism, Residential, and Strategic Residential Reserve (TOU5, R5 and SR1, respectively);</li> <li>• The submission notes that the Kilkee Settlement Plan in the draft CDP does not include site-specific text for the TOU5 lands, whereas other Tourism zoned lands have site-specific text. The same is true of the current CDP;</li> <li>• The submission sets out that the field should be zoned as ‘Agriculture’ because it floods;</li> <li>• It seeks that the Council would investigate the routing of the town’s foul sewer main from the Victoria Pump Station to the Cliff outfall because it may be routed through the field.</li> </ul>	
<b>Chief Executive’s Response</b>	
<p>I want to thank Kevin Heenan &amp; Joseph McCloskey for this submission and I wish to address the issues raised as follows:</p> <p><b>Flood Risk:</b></p> <p>The Settlement Based Flood Risk Assessment for Kilkee (contained within Volume 10c Strategic Flood Risk Assessment of the draft CDP) includes a map of the Flood Risk Zones at Kilkee. There is a mapped Flood Risk zone at this location but there is a very minor overlap of the Flood Risk zone with the TOU5 and SR1 lands, at the location where TOU5 and SR1 adjoin each other and the existing mobile home park at the southeast side of the subject lands.</p> <p>Having regard to the content of the submission, I have consulted with the Council’s Flooding Consultant regarding these sites. Their response is as follows:</p> <p style="padding-left: 40px;"><i>“This site is significantly elevated and not directly connected to the nearby watercourses. Flooding evident on site is likely to be from surface water ponding and should be managed in accordance with the guidance for development in Flood Zone C. The lower (southern) part of the site is vulnerable to inundation from the Well Stream, and is identified to form part of the Kilkee FRS options. It is recommended that this lower part of the site is rezoned to a water compatible use and not developed. See Kilkee tab for details of extent to be rezoned.”</i></p> <p>The “extent to be rezoned” is shown on a map prepared by the consultant. The identified Flood Risk Zone is more extensive than that shown in Volume 10c Strategic Flood Risk Assessment of the draft CDP.</p> <p>I consider that the identified flood risk relating to TOU5 and SR1 represents significant uncertainty. I consider that an area of c. 0.16ha at the southern end of TOU5 and SR1 is zoned as Buffer Space. The c.0.16ha area is divided equally between TOU5 and SR1.</p>	
<b>Chief Executive’s Recommendation</b>	



I recommend that the following amendment is made to the Draft Clare County Development Plan 2023-2029 on the basis of this submission:

The section of the TOU5 and SR1 lands that has been identified as at risk of Flooding is amended to Buffer Space.



## Hydrological Assessment

LOCATION: Kilkee, Co. Clare  
PREPARED FOR: Declan Cunningham, [REDACTED]  
PREPARED BY: Colin O'Reilly PhD (Hydrology)  
DATE: 30th December 2022  
REFERENCE: 2085 v2

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## 1 INTRODUCTION

The following flood risk assessment has been prepared by Colin O'Reilly PhD (Hydrology) of Envirologic Ltd. on behalf of Declan Cunningham, [REDACTED]

This report is intended to inform Clare County Council (CCC) in relation to a proposed amendment to land use zoning in the forthcoming Clare County Development Plan 2023 - 2029. The subject lands are owned and operated by Declan Cunningham of Cunningham's Holiday Park.

For clarity site descriptions and Figures separate the existing caravan park (red line boundary) from the remainder of lands under ownership of Declan Cunningham, referred to in the report as 'subject lands' (blue line boundary).

Envirologic visited the site and conducted a survey of local hydrology and topography on 12th December 2022.

### 1.1 BACKGROUND

The Clare County Development Plan 2017 - 2023 is due to expire on 29th April 2023. Clare County Council have been compiling a replacement plan, Clare County Development Plan 2023 - 2029, which is currently in draft format. The Draft Clare County Development Plan 2023 - 2029 was on public display between 10th December 2021 and March 2022. This plan showed that subject lands are to be zoned broadly in line with the previous iteration (Clare County Development Plan 2017 - 2023).

Following public consultation observations have been submitted by interested stakeholders. On the back of these the Chief Executive has proposed amendments which are to be incorporated into the final draft. These latest amendments are currently available for very brief public consultation and comment before the amended draft is finalised.

A nearby resident submitted an observation comment relating to flood risk on the northern part of lands owned by Cunningham's. Indirectly, this comment has resulted in an area at the southern end of Cunningham's lands as having its land use zoning as specified in the Draft Development Plan altered from TOU5 and SR1 to Buffer Zone, as outlined in the Material Alterations proposed to the **Kilkee Land Use Zoning Map**, as outlined at page 71 of *Volume 3d – West Clare Municipal District Settlement Plans Proposed Amendments*. The area altered to Buffer Zone is at a location where Cunningham's existing caravan van park adjoins greenfield lands to the rear. Mr Cunningham intends to extend the current caravan park into these lands. With the exception of water-compatible land use, Buffer Zone appears to restrict any kind of development.

The Buffer Zone is twenty times larger than the area identified as being at risk of flooding. The over-sizing of the Buffer Zone extends across the entire western boundary of the caravan park, making any future connection with lands to the rear potentially problematic in terms of planning.

Furthermore, it is unclear as to whether this area is currently at risk of flooding or will become at risk of flooding following works proposed as part of the Kilkee FRA. This uncertainty is due to ambiguity and inconsistencies in the Kilkee FRS and the Kilkee Flood Extents map.

### 1.1.1 [Pl. Ref. 21/355](#)

Cunningham's Holiday Park applied for planning permission to extend the existing caravan park onto this greenfield area to the rear as recently as April 2021 (Pl. Ref. 21/355).

By way of a further information request Clare County Council made reference to the ongoing Kilkee FRS, which is still at preliminary design stage. Of note, the council requested 'a *site-specific analysis of the potential for flooding on the site*' and for the applicant to '*demonstrate that the proposed development... is not in conflict with the intended measures of the Kilkee Flood Relief Scheme project*'.

The council issued a refusal with Condition 1 cited as follows:

1. *The Planning Authority is not satisfied that the Flood Risk Assessment submitted with the application adequately demonstrates that the proposed development will not result in an increased risk of flooding of the site or adjoining lands or pose a risk to existing developments in the vicinity. It is therefore considered that the proposed development would exacerbate the risk of flooding within the site and/or increase the risk and consequences of flooding elsewhere, and would be premature pending the design and provision of flood relief measures for the area. The proposed development would therefore be contrary to Ministerial Guidelines and would be prejudicial to public health and safety and would be contrary to the proper planning and sustainable development of the area.*

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## 1.2 APPROACH

This assessment aims to demonstrate that the Material Alteration proposed to the **Kilkee Land Use Zoning Map**, as outlined at page 71 of *Volume 3d – West Clare Municipal District Settlement Plans Proposed Amendments* is not valid, nor is it based on accurate information which is in the public domain.

Assigning a Buffer Zone to lands that are potentially at risk of flooding is inappropriate. The Flood Risk Guidelines (2009) are intended to provide a framework for any applicant proposing development works within their local authority. Where national mapping or local authority experience suggests that there is potential for flood risk a site-specific flood risk assessment should be carried out at a scale that is suited to the scale of proposed development works. This should accompany the planning application. By way of a sequential approach the Flood Risk Guidelines (2009) assign a schedule of which activities are permissible in various food risk zones.

Furthermore, assigning a Buffer Zone to the subject lands is inappropriate as these lands have not been clearly shown to be at risk of potential flooding due to the current hydrological regime.

## 2 SITE DESCRIPTION

### 2.1 SITE LOCATION

Declan Cunningham owns and operates Cunningham's Holiday Park on the western side of Kilkee, a coastal town in West Clare (2.8 km southwest of the caravan park). Lands climb consistently from the caravan park to this hill top. Between the caravan park and Moveen Hill are some smaller, isolated hills that reach 57 - 72 mOD.

The caravan park is in close proximity to the coast, with the nearest point being Kilkee Beach which comes to within 200 m. The coastline wraps around to the north of the caravan park, setback to a distance of approximately 500 m. North of the site the coastline is defined by a steep cliff face. There are some minor undulations which includes a headland above Intrinsic Bay called Knockroe (61 mOD).

To the north of the caravan park are residential developments (Well Field Housing Estate) and an open area which is understood to be used by the county council but was previously a public car park (known as Well Road Car Park).

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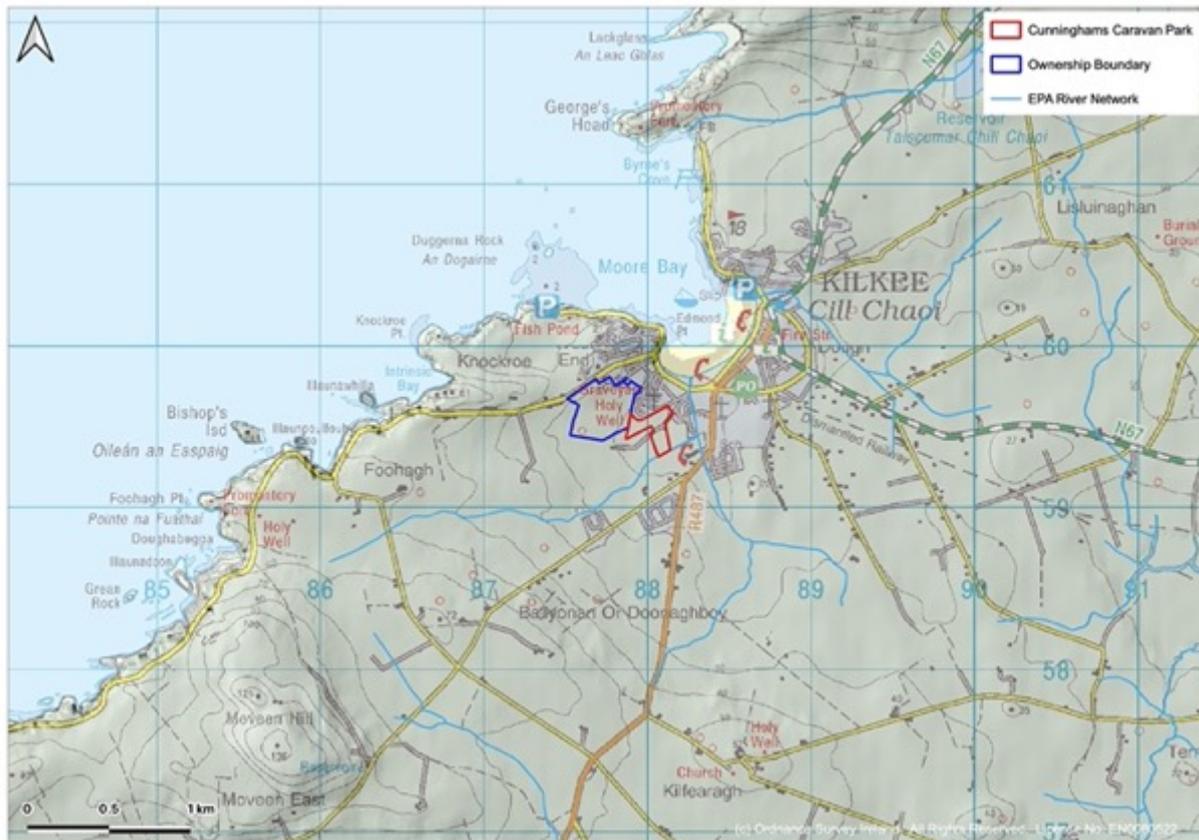
1: 50,000 OS Discovery Map Series shows the site to be at an elevation of 0 and 30 mOD, with elevations increasing gradually from east (Kilkee Beach) to the west (Knockroe) and southwest (Moveen Hill).

Moveen Hill is the dominant topographical feature of interest in the area, it being a short southeast-northwest raised ridge that peaks at 136 mOD, 2.8 km southwest of the caravan park. Lands climb consistently from the caravan park to this hill top. Between the caravan park and Moveen Hill are some smaller, isolated hills that reach 57 - 72 mOD.

The caravan park is in close proximity to the coast, with the nearest point being Kilkee Beach which comes to within 200 m. The coastline wraps around to the north of the caravan park, setback to a distance of approximately 500 m. North of the site the coastline is defined by a steep cliff face. There are some minor undulations which includes a headland above Intrinsic Bay called Knockroe (61 mOD).

To the north of the caravan park are residential developments (Well Field Housing Estate) and an open area which is understood to be used by the county council but was previously a public car park (known as Well Road Car Park).

Figure 1 – Site Location &amp; Topography



## 2.2 SITE LAYOUT

The current caravan park has an area of 3.9 ha. It is irregular in shape but is essentially a northeast-southwest rectangle (300 m length by 70 m width), with another rectangular area (190 m length by 90 m width) appended to the centre, extending southeast from this point. The caravan park is accessed at its eastern end from Well Road, a cul-de-sac which connects onto Marine Parade.

The owner of Cunningham's Holiday Park owns lands which adjoin to the rear (west) of the existing caravan park and which have an overall area of 11.85 ha. These lands are currently in greenfield condition. The northern end of the subject lands adjoin Dunlicky Road. Any future extension of the existing caravan park would need to be directly connected to the subject lands. The only connection is where the rear (western) end of the existing caravan park meets the southeastern corner of the subject lands.

A topographical survey of the subject lands was performed by Diarmuid Keane & Associates. It shows that there is currently a 'mound' running north-south along the western boundary of the caravan park. The height of the mound is unconfirmed but is in the order of 1 m. The mound is broken by a gated entrance which provides access to the subject lands to the rear.

Gradients are fairly uniform on the subject lands with the exception of an enclosed topographical depression which can be clearly viewed as an oval shape in Figure 2. This land parcel was known locally as the 'Track Field' and was used historically for running/racing horses. The oval area is bordered by a low berm on its southeastern side.

Figure 2 – Site Layout



## 2.3 SOILS & GEOLOGY

Teagasc soil maps indicate that the dominant soil in the wider area are deep and poorly-drained with an alkaline signature. These soils cover the subject site. Soils of County Clare (Finch et. al., 1971) show these soils as belonging to the Kilrush Series. The Kilrush Series is formed from Upper Carboniferous shales and sandstones and tills derived from these. Quaternary deposits at the site are mapped by the GSI as shale and sandstone till (Namurian).

The site is underlain by the Central Clare Group, a sandstone, siltstone and mudstone.

## 2.4 HYDROLOGY

### 2.4.1 Watercourses

Kilkee Bay is drained by two second order streams, these being:

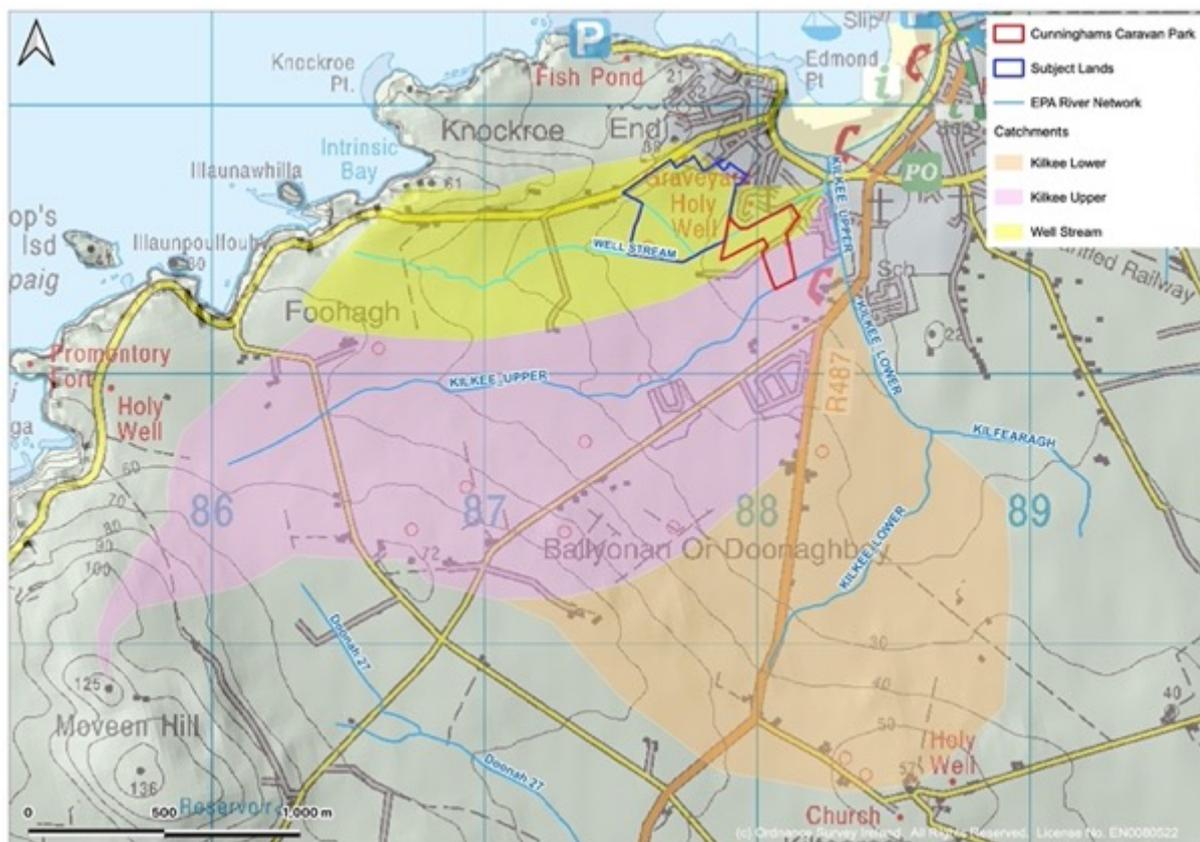
- Kilkee Upper - extends southwest of Kilkee for 2.8 km, passing adjacent to the southern boundary of Cunningham's Caravan Park, to which point it has a catchment area of 1.84 km<sup>2</sup>. The Kilkee Upper outfalls onto Kilkee Beach, where it has a catchment of 4.37 km<sup>2</sup>. The Kilkee Upper is also fed by the following streams:

- Kilkee Lower - The Kilkee Lower extends due south of Kilkee. It joins the Kilkee Upper at the southern end of Victoria Park, at which point it has a catchment of 1.67 km<sup>2</sup>.
- Kilfearagh - The Kilfearagh Stream is a short channel, approximately 800 m, that is a tributary of the Kilkee Lower. It drains a relatively small area of low-lying land south of Kilkee.
- Dough Stream - this channel drains a small catchment to the east of Kilkee (4.98 km<sup>2</sup>). It is fed by 3 tributaries which merge at the rear of Kilkee GAA pitch. This stream outfalls at the northeastern end of Kilkee Bay.

The Victoria Stream refers to the combined Kilkee Upper and Kilkee Lower which flows in a south to north direction on approach to, and through, Kilkee.

Catchments on the western side of the above channels are illustrated in Figure 3.

**Figure 3 – Catchments Map**



The channel that is the focus of this assessment is not shown on OS 1:50,000 Discovery Maps or on the EPA database. It is referred to as the Well Stream in the Kilkee FRS and the routing is shown on historical maps below. The Well Stream drains agricultural lands to the west of the caravan park. It enters a culvert at the western end of the caravan park and outfalls to a walled channel which runs along the northern boundary of the caravan park, before outfalling to the Kilkee Upper a short distance upgradient of Kilkee Beach.

#### 2.4.2 [Historical OSI Maps](#)

First edition 6" OSI maps, dated c.1829-1841 (Figure 4), do not show any indicators of flooding in the area. The current caravan park, subject site and surrounding lands are shown to be in greenfield condition. St Senan's Well is shown to the north of the current caravan park. This is understood to have been a historical spring. The dotted line in the southern part of Figure 4 is a townland boundary.

Figure 4 – Historical 6" first edition black and white OSI maps (1837 – 1842)



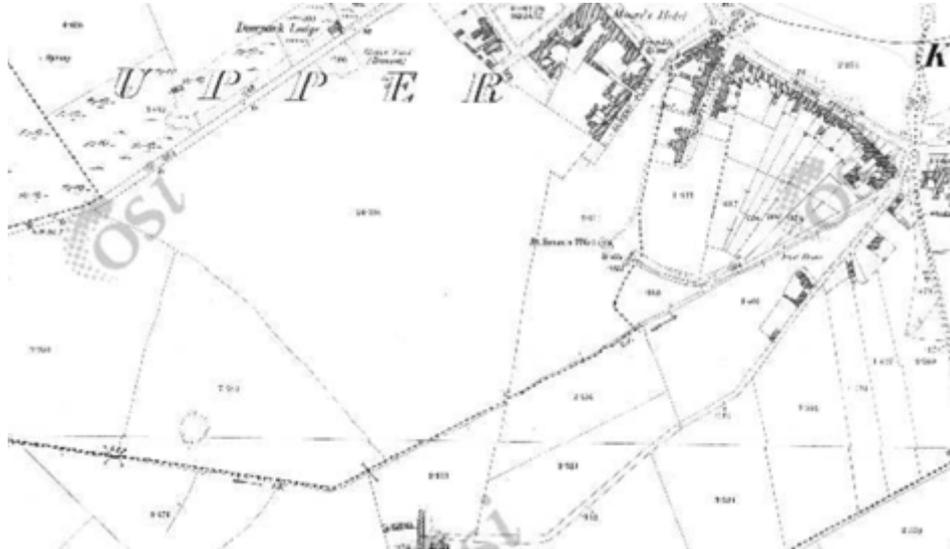
Final edition 6" OSI maps show that the townland boundary that corresponds with the southern boundary of the site is an active water channel that flows generally eastwards (Figure 5). It is shown to rise on high ground approximately 1.6 km west of the current caravan park. There is also a contribution from lands on the northern side of the Dunlicky Road. The channel is shown to outfall to the Kilkee Upper immediately upstream of the Marine Parade.

Figure 5 – Historical 6" OSI maps final edition (1830 – 1842)



The 25" OSI map in Figure 6 shows that the routing of the Well Stream is well established and remains largely unaltered to the present day.

**Figure 6 – Historical 25" OSI maps final edition (1888 – 1913)**



#### 2.4.3 [Site Hydrology](#)

The site was visited on 12<sup>th</sup> December 2022. The routing of the Well Stream as shown in Figure 3 was visually confirmed. Surveyed water levels along the Well Stream are shown in Figure 7.

The stream flows through the subject lands within an open channel alongside field boundaries. The channel is relatively steep in the upper catchment, in line with topography through the subject lands, but flattens out on approach to the caravan park.

The first structure encountered is a concrete culvert which passes under the access crossing connecting the caravan park with the subject lands (Figure 8). It has the following specifications:

- Length = 7 m
- Inner Diameter = 900mm
- Inlet Invert Level = 6.23 mOD
- Outlet Invert Level = 6.23 mOD
- Inlet Water level = 6.32 mOD
- Outlet Water level = 6.30 mOD

Figure 7 – Site Hydrology Map



Following a brief opening the Well Stream enters a second structure which transmits the stream along the northern boundary of the caravan park (Figure 9). This culvert was reportedly installed upon request from the local authority in recent years. This second culvert has the following specifications:

- Length = 133 m
- Inner Diameter = 960 mm
- Inlet Invert Level = 6.23 mOD
- Outlet Invert Level = 3.99 mOD
- Inlet Water level = 6.32 mOD
- Outlet Water level = 3.80 mOD

Upon exiting the culvert along the northern boundary of the caravan park the Well Stream enters an open channel. This channel is bounded by a concrete wall that supports the raised ground upon which the caravan park sits (Figure 10). At the eastern end of the caravan park the channel is bounded on its northern site by a county council storage yard. This open channel has a length of 237 m before flow enters a concrete box culvert which passes under Well Road. Beneath the road the Well Stream outfalls to the Victoria Stream (Kilkee Upper), which itself outfalls to the sea a further 100 m downstream (Figure 11).

Figure 8 – Inlet to Culvert routed under Field Entrance on Western Boundary of Caravan Park



Figure 9 – Inlet to Culvert routed under Western Boundary of Caravan Park



Figure 10 – Well Stream: (a) Adjacent to Northern Boundary of Caravan Park; (b) Downstream of Caravan Park



Figure 11 – Coastal Outfall



#### 2.4.4 [Historical Flood Events](#)

Reference was made to the OPW flood hazard mapping tool. This includes minutes of a 2006 local authority meeting which includes the following relevant information:

- *The Victoria Stream flows in an easterly direction just north of the R487 and overflows its banks over a length of 200-300m. Church Street and Well Road Car park are flooded. Road is not passable and the*

*car park is closed. 4 to 5 houses are affected. Some reports have been written on this problem. Some claims have been made against the Council. Frequency is about once per year. Cause is heavy rainfall/runoff exacerbated by tides/wind. The problem is being worsened by development in the Victoria Stream flood plain which is reducing flood storage and increasing runoff.*

The Clare County Development Plan 2023 – 2029 also makes reference to a flood event in Kilkee during 2014. The Kilkee FRS website includes the following relevant images of a flood event in 2019 (see Figure 12).

**Figure 12 – Flood Event Well Stream 2019 (OPW)**



#### 2.4.5 [Benefitting Land Maps](#)

None of the watercourses in and around Kilkee are maintained as part of OPW arterial drainage schemes.

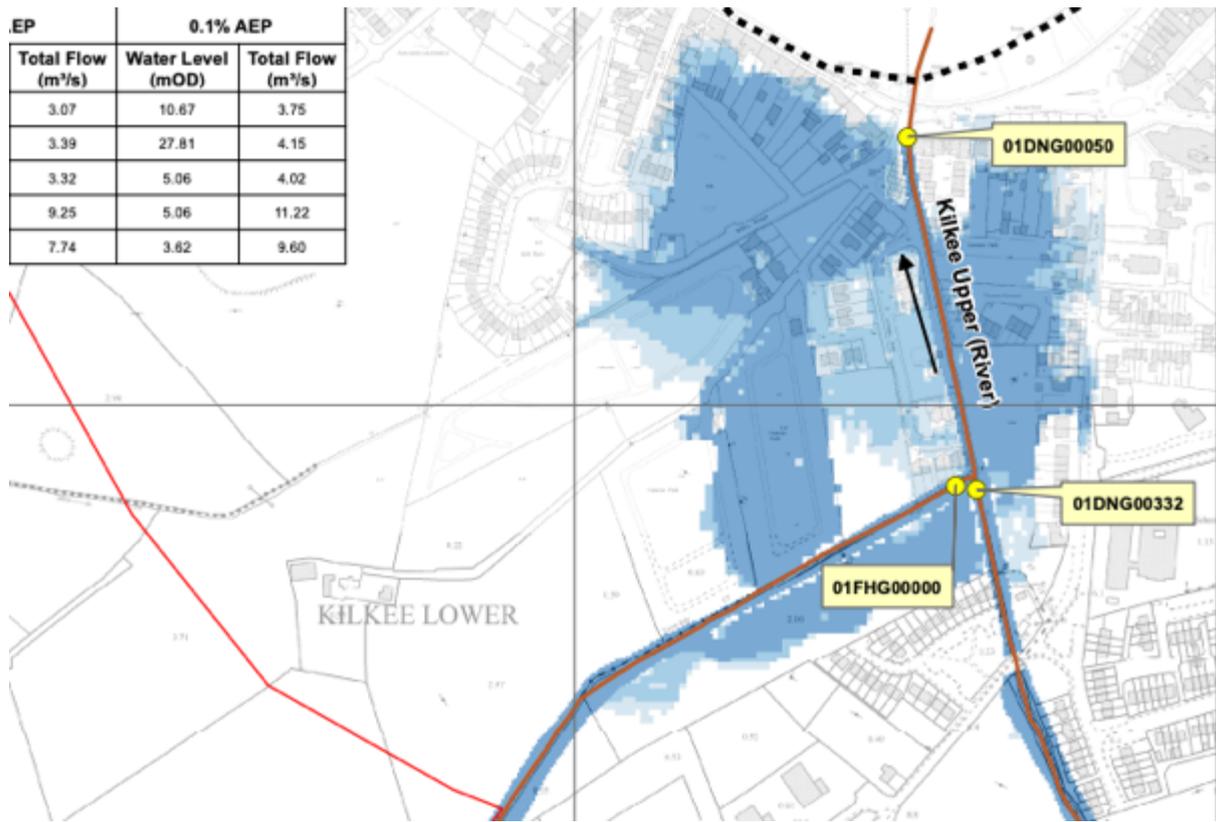
#### 2.4.6 [National Indicative Fluvial Mapping \(NIFM\)](#)

The site is not covered by the OPW National Indicative Fluvial Mapping.

#### 2.4.7 [CFRAM](#)

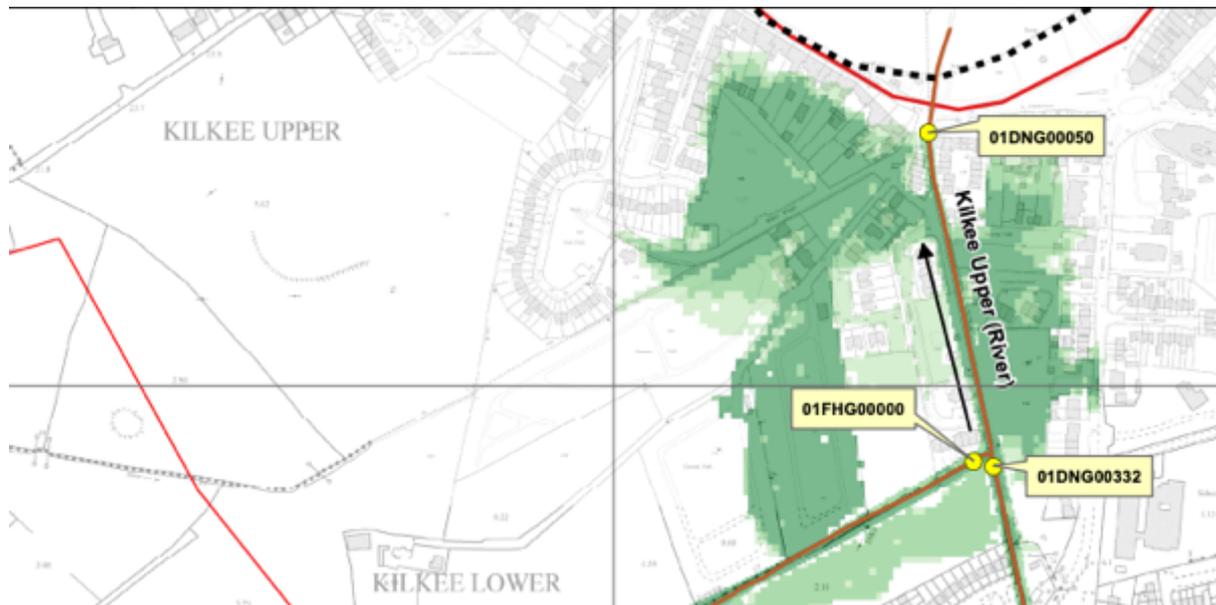
Based on historical flooding and the level of flood risk Kilkee was selected as an Area for Further Assessment (AFA), meaning it was included in the more detailed OPW CFRAM mapping programme. An excerpt from the CFRAM fluvial flood map shows that the Well Stream was not included in the hydraulic model (Figure 13) as it was deemed not be a High Priority or Medium Priority watercourse. The subject lands are not deemed to be at risk of fluvial flooding; the eastern portion of the caravan is at risk of flooding, this appears to emanate from the Kilkee Upper.

Figure 13 - Excerpt from Kilkee Fluvial CFRAM Map



An excerpt from the CFRAM coastal flood map (Figure 14) broadly replicates the fluvial flood extents.

Figure 14 - Excerpt from Kilkee Coastal CFRAM Map



#### 2.4.8 [Flood Risk Management Plan \(FRMP\) – Shannon Estuary North](#)

The Shannon Estuary North FRMP briefly discusses flood issues in Kilkee. The Well Stream was not included in the list of outline measures. Along the Kilkee Upper walls and embankments were stated as being preferred over culverts as they can better facilitate future growth in flow rates and coastal storm levels due to climate change.

#### 2.4.9 [Clare County Development Plan 2023-2029: SFRA](#)

Page 36 of the amended Clare County Development Plan SFRA 2023-2029 provides a flood map for Kilkee town. The resolution of the map is very poor and it could not be sourced elsewhere. The resolution was too low to import into mapping software for further spatial analysis. The map is included below as Figure 15.

There are no details of this flood map in the public domain, nor any hydraulic model having been compiled to support these flood extents. The image suggests that a small area in the southeastern corner of the subject lands lies in Flood Zone B.

**Figure 15 - Excerpt from Kilkee Coastal CFRAM Map**



## 2.5 KILKEE FLOOD RELIEF SCHEME (FRS)

Another outcome of the above FRMP was to forward Kilkee for a Flood Relief Scheme. Newsletter 1 issued in September 2021 stated that the hydraulic model for Kilkee had been finalised and options were being developed

for review. Detailed design works were due for completion in early 2023 and the construction phase for the scheme was initially due for completion in 2024. Based on current progress these delivery dates will be significantly delayed.

### 2.5.1 [Public Consultation](#)

The scheme developers (JBA) issued a questionnaire in August 2022 which requested feedback on the following potential flood management options:

- *Would you prefer the Well Stream to be culverted or enclosed in walls?*
- *Well Stream culvert connection to Victoria Stream (proposed in all 3 options)*
- *Well Stream and Victoria Stream Walls (proposed in all 3 options)*
- *Church Field Road Storage (proposed in all 3 options)*
- *Western Tributary Storage (proposed in all 3 options)*
- *Upstream Storage on Victoria Stream (Option 2 only)*
- *Culvert from Western Tributary to Well Stream (Option 3 only)*

### 2.5.2 [Model Output of FRS Options](#)

The full demonstration of options being put forward as part of the Kilkee FRS have been included as Appendix A, a document which was issued by JBA in August 2022. In relation to the focus of this assessment all of the options appear to include an embankment on the access point between the western boundary of the caravan park and the subject lands (see Figure 16). Unfortunately, the options appraisal is lacking important detail in that the height of this proposed embankment is not stated anywhere and whether the existing access will be maintained. It is also important to note that the proposed embankment covers a recently installed Irish Water rising main that brings treated sewage to a coastal outfall. The existing access point is part of an Irish Water wayleave.

Under all of the mapped options the embankment appears to create a small area denoted as '*flood extents increased by option*'. The map legend shows that this area was not at risk of potential fluvial flooding prior to the embankment being included in the modelled scenario.

Each of the Options Appraisal summaries list constraints, almost all of which are entirely relevant to Mr Cunningham's lands and potential for future extension of the caravan park.

Option 1A Constraints:

- *Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors.*

Option 1B Constraints:

- *Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors.*

Option 2 Constraints:

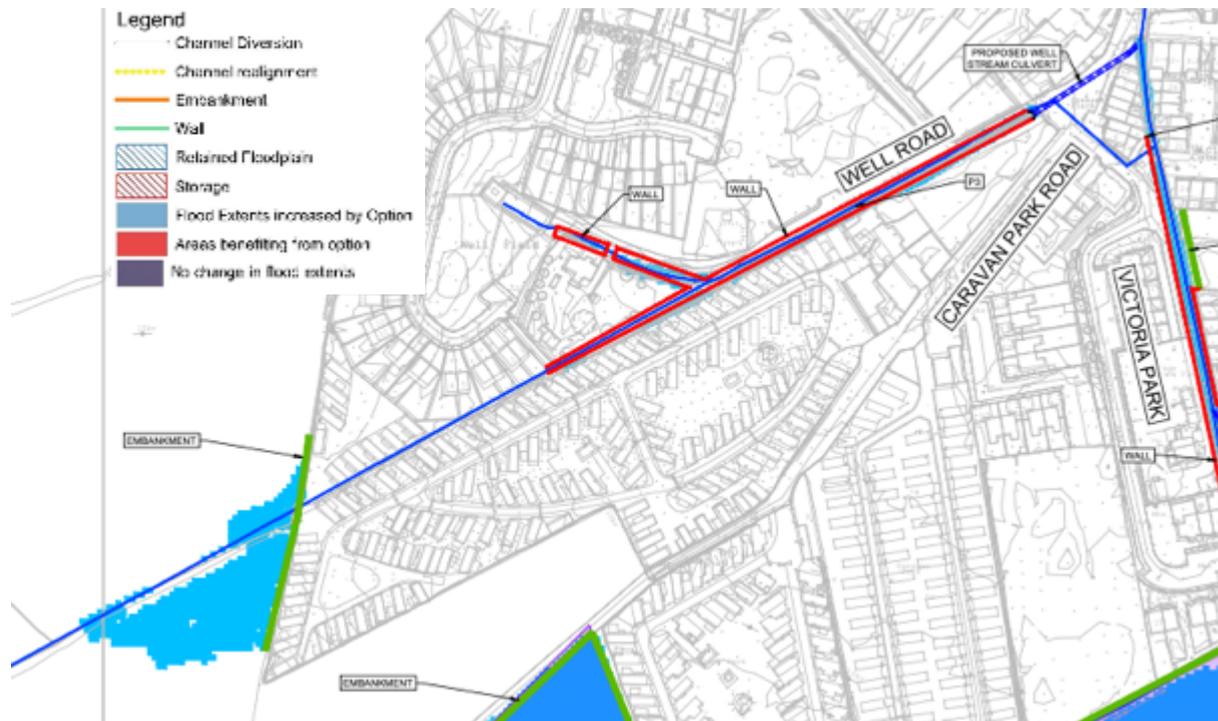
- *Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors.*
- *Requires use of land which is not in floodplain for storage.*

Option 3 Constraints:

- *Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors.*

The impact of the proposed embankment on the subject lands is largely dismissed given the current greenfield condition. The proposals ignore the intention of Mr Cunningham to extend the caravan park westwards into this area, as evidenced by his recent planning application.

**Figure 16 - Proposed Embankment between Caravan Park and Subject Lands Proposed under Kilkee FRS**



2.5.3 Consultation

To date Mr Cunningham has not been involved in any public consultation and has not been approached by JBA as landowner where the western embankment on the Well Stream is proposed.

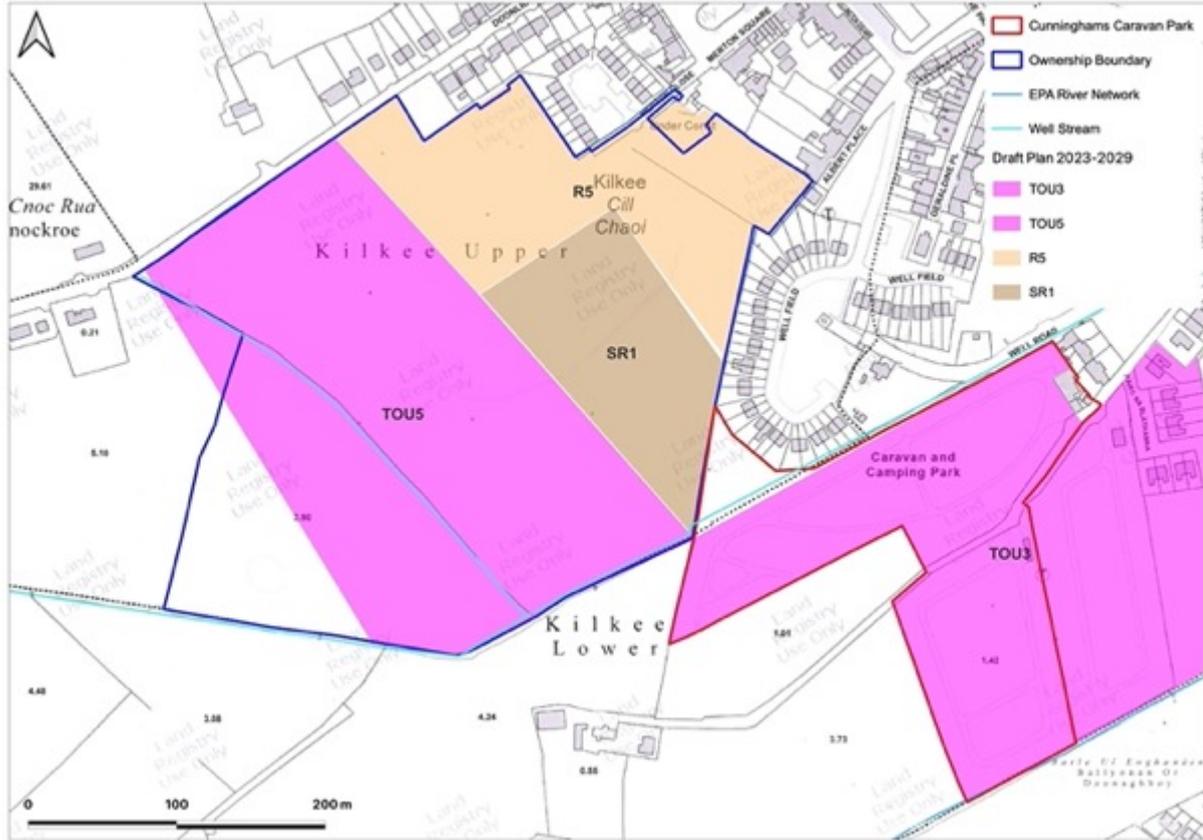
In light of Mr Cunningham’s willingness to facilitate all previous works on his lands by Clare County Council and Irish Water it is likely that he would be willing to facilitate JBA and the Kilkee FRS in a way that also facilitates his plans for extending the caravan park westwards into the subject lands.



### 3.2 DRAFT CLARE COUNTY DEVELOPMENT PLAN 2023-2029

The land use zoning issued under the Draft County Development Plan 2023-2029 is largely consistent with the 2017-2023 Plan (Figure 18).

Figure 18 – Land Use Zoning as Per Draft Clare County Development Plan 2023 – 2029



### 3.3 DRAFT CLARE COUNTY DEVELOPMENT PLAN 2023-2029: SUBMISSIONS

The Draft Plan invited consultation from relevant stakeholders in 2022. An Observation on the Draft County Development 2023-2029 concerning the subject lands was submitted in a joint letter from local residents. In the letter two primary concerns are listed with respect to the subject lands:

1. *We believe that the land zoned as R5, SR1 and TOU5 was originally zoned for agriculture and we believe from the attached photograph, that as it is prone to flooding and not suited for development because of the flooding issue and as such should be reverted back to agriculture.*
2. *We would also suggest that the Council would check the routing of the current town wastewater pipe from the pump station to the cliff outfall. We believe that this pipe lies underneath part of the land designated as TOU5 and as there is no specific plan yet for an upgraded wastewater treatment plant, we believe that to protect the integrity of the existing pipe, it would not be prudent to allow any development overhead it's current location if that is the case.*

The submission does not make any reference to flood risk at the southeastern corner of the subject lands.

Envirologic are of the opinion that parts of these observations are reasonable and valid. The area shown in the submission as being flooded is an enclosed topographical depression. During heavy rainfall this appears to be prone to pluvial flooding. This flood mechanism provides important storage of rainwater during heavy rainfall, releasing it slowly by way of an overflow, leakage through the downgradient berm or infiltration. This reduces peak flow in local watercourses during flood events. A site-specific flood risk assessment would likely conclude that development in this area would only be permissible on the provision of compensatory storage to ensure no net loss of floodplain storage. Mr Cunningham acknowledges the important role this feature plays during flood events.

The second item relates to the Irish Water right of way. Mr Cunningham facilitated Irish Water during these works and any proposals to develop directly on this wayleave in future would be subject to agreement from Irish Water.

The submission sets out that the subject lands should be entirely rezoned as 'Agriculture' because it floods. Envirologic would disagree with this recommendation. The Flood Risk Guidelines (DoEHLG, 2009) request that any site-specific flood risk assessment apply the principles of the Sequential Approach. The sequential approach is used to assess flood risk on a site and, where there is variability, to assign appropriate zones in accordance with the Guidelines (DoEHLG, 2009). Subject to a Justification Test different activities and types of development are permitted on each of the three flood zone classifications (Zones A, B and C). Clause 2.16 of the Flood Management Guidelines (OPW, 2009) states: *'The classification of different land uses and types of development as highly vulnerable, less vulnerable and water-compatible is influenced primarily by the ability to manage the safety of people in flood events and the long-term implications for recovery of the function and structure of buildings.'*

The Planning System and Flood Risk Management guidelines provide three vulnerability categories based on the development type:

- Highly vulnerable = residential, hospitals, schools, essential infrastructure, emergency service facilities.
- Less vulnerable = buildings used for retail, warehousing, commercial, industrial and non-residential institutions.
- Water-compatible development = amenity open space, outdoor sport and recreation.

Different types of development are appropriate in each of the Flood Zones, based on their vulnerability to flood risk. Hence:

- Highly vulnerable: requires Justification test in Flood Zone A and Flood Zone B, appropriate in Flood Zone C;
- Less vulnerable: requires Justification test in Flood Zone A; appropriate in Flood Zone B and Flood Zone C;
- Water-compatible = appropriate in Flood Zones A, B and C.

It is these criteria that dictate appropriate land uses on a site. Sterilisation of land by way of assigning Buffer Zones does not conform with the way in which the aims and objectives of the Flood Risk Guidelines (2009) are to be applied.

### 3.4 DRAFT CLARE COUNTY DEVELOPMENT PLAN 2023-2029: AMENDED SFRA

The amended SFRA does make direct reference to lands referred to as TOU5, SR1, or R5, i.e. the subject lands. A comment is noted regarding lands zoned for Tourism as follows:

- *There are a number of existing caravan sites and a hotel / holiday home complex within Flood Zone A and B. Although the zonings have been retained to reflect the current land use, they have not passed the Justification Test and development should be limited to Section 5.28 of the Planning Guidelines. Until such time as the flood relief scheme is complete, extensive redevelopment of this area is considered premature and not permitted.*

The Kilkee flood zone is once again included in this document, but again at a resolution which makes it difficult to interpret. The map shows that a small area in the south eastern corner of the subject lands is in Flood Zone B.

### 3.5 AMENDED DRAFT CLARE COUNTY DEVELOPMENT PLAN 2023-2029: AMENDMENT

Following the submission from local residents the zoning on the subject lands was amended by including a 'Buffer Zone'.

The reasoning behind the decision to amend the Draft County Development Plan 2023-2029 is provided in the Chief Executive Report covering West Clare Municipal District, issued 10<sup>th</sup> July 2022. Page 300 addresses the submission from the local residents which was discussed above.

The relevant points as stated in the Chief Executive's response are listed as follows:

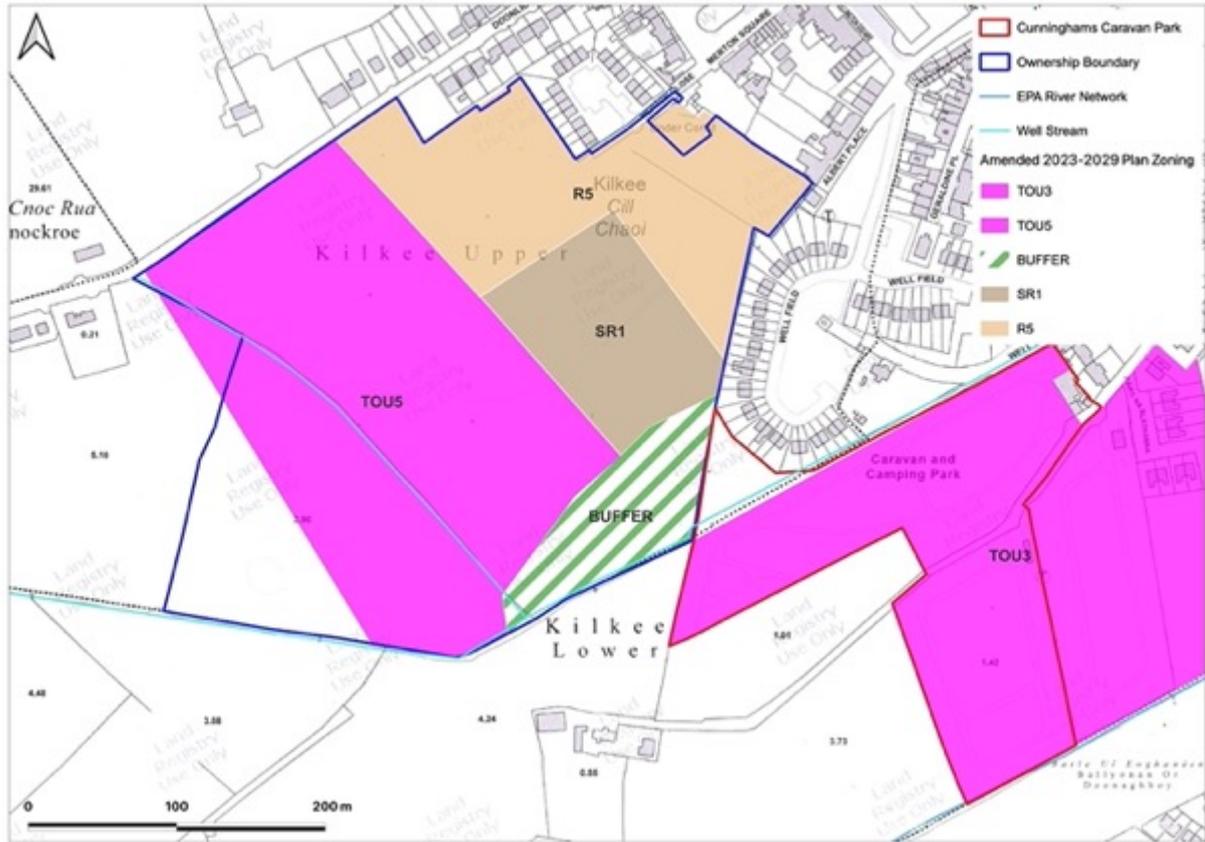
- *The SFRA includes a map of the flood risk zones at Kilkee.*
- *There is a very minor overlap of the flood risk zone with the TOU5 and SR1 lands, at the location where TOU5 and SR1 adjoin each other and the existing mobile home park at the southeast side of the subject lands.*
- The Council's Flooding Consultant was consulted and provided the following response:
  - *"This site is significantly elevated and not directly connected to the nearby watercourses. Flooding evident on site is likely to be from surface water ponding and should be managed in accordance with the guidance for development in Flood Zone C. The lower (southern) part of the site is vulnerable to inundation from the Well Stream, and is identified to form part of the Kilkee FRS options. It is recommended that this lower part of the site is rezoned to a water compatible use and not developed. See Kilkee tab for details of extent to be rezoned."*
- *The extent to be rezoned is shown on a map prepared by the consultant.*
- *I consider that the identified flood risk relating to TOU5 and SR1 represents significant uncertainty. I consider that an of c.0.16 ha at the southern end of TOU5 and SR1 is zoned as Buffer Space. The c.0.16 ha area is divided equally between TOU5 and SR1.*
- *The section of the TOU5 and SR1 lands that has been identified as at risk of flooding is amended to Buffer Space.*

Envirologic have the following comments to make on the above:

- The submission from local residents does not make any reference to flood risk at the southeastern corner of the subject lands. The proposed amendment which includes creation of a 'Buffer Zone' land use zoning is entirely new and this is the first reference of it. This significant rezoning proposal has not undergone a fair and proper public consultation phase.
- The basis for creation of a buffer zone seems to be derived from information which is not currently in the public domain. It is therefore difficult for Envirologic to provide an accurate analysis regarding the validity of same.
- The flood extents map included in the SFRA for Kilkee is different to that shown in the Kilkee FRS. The resolution of the map in the SFRA is too low to allow accurate delineation and estimation of the area at risk of flooding. It looks to be smaller than the shown as being created in the Kilkee FRS
- The amended Kilkee SFRA shows that the area in the southeastern corner of the subject lands which is currently at risk of potential flooding lies within Flood Zone B. Flood Zone B permits all kinds of development, subject to a site-specific flood risk assessment and Justification Test.
- The Kilkee FRS shows that the flood area at the southeastern corner of the subject lands is newly created, only arising following installation of an embankment, which is one of the options being proposed. The Kilkee FRS does not show this to be an area already at risk of flooding. Hence assigning land use zoning based on an FRS which is still at design phase is premature.
- The Kilkee FRS acknowledged the creation of new flood risk areas as a constraint, but dismissed this constraint due to the lands currently being in greenfield condition. This ignores the intention of the landowner to extend the caravan park in this direction, as proven by the application to do this in 2021. Further consultation with the FRS designers is necessary to ensure they are aware of the importance of these lands in terms of providing future tourist accommodation in Kilkee.
- There is a significant discrepancy in areas stated in the CE report against those shown in the amended land use map.
- The newly created flood risk area caused by the Kilkee FRS is estimated as 500 m<sup>2</sup>. It extends from the current access point for 25 m in a north-south direction and 38 m in a southwest-northeast distance. It does not extend along the entire western boundary of the caravan park.
- The Buffer Zone presented in the Chief Executive report has an area of 9,613 m<sup>2</sup> (1 ha) and extends along the entire western boundary of the current caravan park.
- The Flooding Consultant states that the lower (southern) part of the site is vulnerable to inundation from the Well Stream. This is misleading. The SFRA suggests it is currently in Flood Zone B whereas the Kilkee FRS shows that a new flood risk area will only be created in this area by way of a proposed embankment, the specifications of which have yet to be finalised.
- The recommendation to rezone the lower southeastern corner of the site to 'a water compatible use and not developed' is entirely unjustified.
- Any such proposal should be determined as part of a site-specific flood risk assessment which will allow the analysis of site-specific flood alleviation measures such as compensation storage and would provide analysis of suitable land uses such as an access road connecting the caravan park to the subject lands.
- The map referred to as having been prepared by the consultant is not available for review. The hydrological basis for determining flood risk areas has not been presented.

- The Buffer Zone extends across the entire western boundary of the caravan park which will make it almost impossible to extend westwards into the subject lands. The buffer zone will effectively sterilise the subject lands to the rear.

Figure 19 – Amended Land Use Zoning as Per Draft Amended Clare County Development Plan 2023 – 2029



In relation to flood risk the following text has been amended in the Draft Plan:

*Proposed Residential Development Where proposed residential developments are located wholly within Flood Zone A, they are considered inappropriate and a less vulnerable/water compatible use should be substituted. Where a site is partly within Flood Zone C, development can be guided by a specific objective to limit development should be limited to these parts of the site, with water compatible uses e.g. open space and parking located within Flood Zone A and B. In areas of Existing Residential located in Flood Zones A/B, development should be in accordance with Section 5.28 of the Flood Risk Management Guidelines.*

This does not make any reference to implementation of a buffer zone on the subject lands. Nor is there any reference to changing the area applicable to SR1 or TOU5.

## 4 SUMMARY

An amendment is proposed on the Clare County Development Plan 2023 – 2029 which introduces a ‘Buffer Zone’ on subject lands owned by the owner and operator of Cunningham’s Holiday Park. This buffer zone is in the southeastern corner of greenfield lands that adjoin the rear and western boundary of the current caravan park. The buffer zone will sever any potential for future extension to the caravan park in a westerly direction.

Envirologic advise that the proposal for implementing the Buffer Zone land use be removed and that land use zoning should be maintained in line with the current draft development plan. The primary reasons are presented in detail in the previous section, summarised as follows:

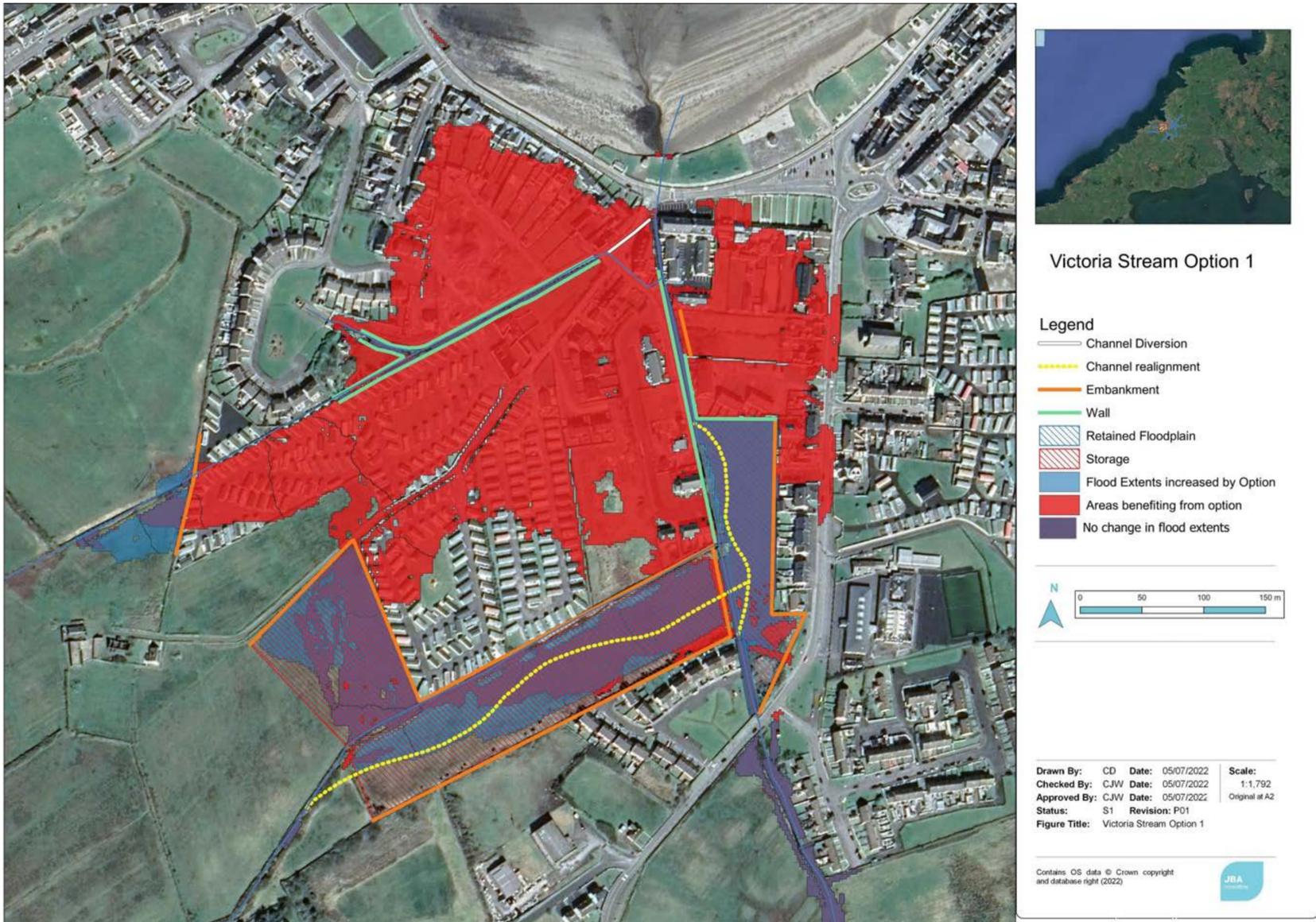
- i. Assigning a buffer zone is premature until the Kilkee FRS is complete.
- ii. Further clarify is needed on why an area shown in the SFRA as being in Flood Zone B is being treated as Flood Zone A by why of changing to buffer zone.
- iii. Further clarity on whether the flood risk zone as shown in the Kilkee FRS is existing or will be result from the proposed embankment option.
- iv. Further clarity on why the buffer zone is twenty times larger than the area deemed to be potentially at risk of flooding (current or future flood risk needs clarification).
- v. The buffer zoning is very restrictive and may prevent vehicular and pedestrian movement between the caravan park and the subject lands to the rear.
- vi. Further consultation is needed between Clare County Council, JBA, Irish Water and Mr Cunningham regarding specifications of embankment option being proposed at the western boundary of the caravan park. The applicant has facilitated all works on his lands in the past. This has included culverting of the Well Stream as advised by the county council, and works to facilitate an Irish Water rising main carrying treated wastewater to a coastal outfall.
- vii. Assigning a buffer zone to effectively sterilise lands and access routes to adjoining lands is a crude tool that is not used on a national basis. Assigning a Buffer Zone to lands that are potentially at risk of flooding is inappropriate and inconsistent with the the Flood Risk Guidelines (2009) which advise on a schedule of activities permissible in various food risk zones.
- viii. As these FRS works are scheduled for completion during the lifetime of the incoming development plan it seems more in line with standard land use zoning to judge every application on a case-by-case basis and that all such applications should be accompanied by a detailed site-specific flood risk assessment.
- ix. Given the importance of the subject lands to the future viability of the caravan park it is plausible that consultation should take place to explore other options that can provide flood alleviation elsewhere on the subject lands. Such works can include inline storage on the Well Stream further upstream and within lands owned by Mr Cunningham. This may negate the need for the embankment option. This could be in the form of a constructed wetland that brings ecological and water quality benefits.
- x. This amendment which inserted a Buffer Zone on the applicant lands is not based on accurate and consistent information. Nor is it based on information which is in the public domain.

Overall, the rationale for assigning a buffer zone, never mind one of such size is confusing and inconsistent. The information presented in the SFRA, the amended Plan and the Kilkee FRS are conflicting. It seems that this zoning is being recommend to facilitate the Kilkee FRS on private lands.

APPENDIX A – KILKEE FRS OPTIONS APPRAISAL

# Victoria Stream Option 1A

## Containment / Storage



### What's involved?

- Combination of Walls and embankments along the Well Stream and the Victoria Stream
- Channel Realignment and containment in the Church Road field
- Channel Realignment and storage in the form of constructed wetlands on the Western Tributary
- Construction of new outfall culvert from Well Stream to Victoria Stream

### Benefits

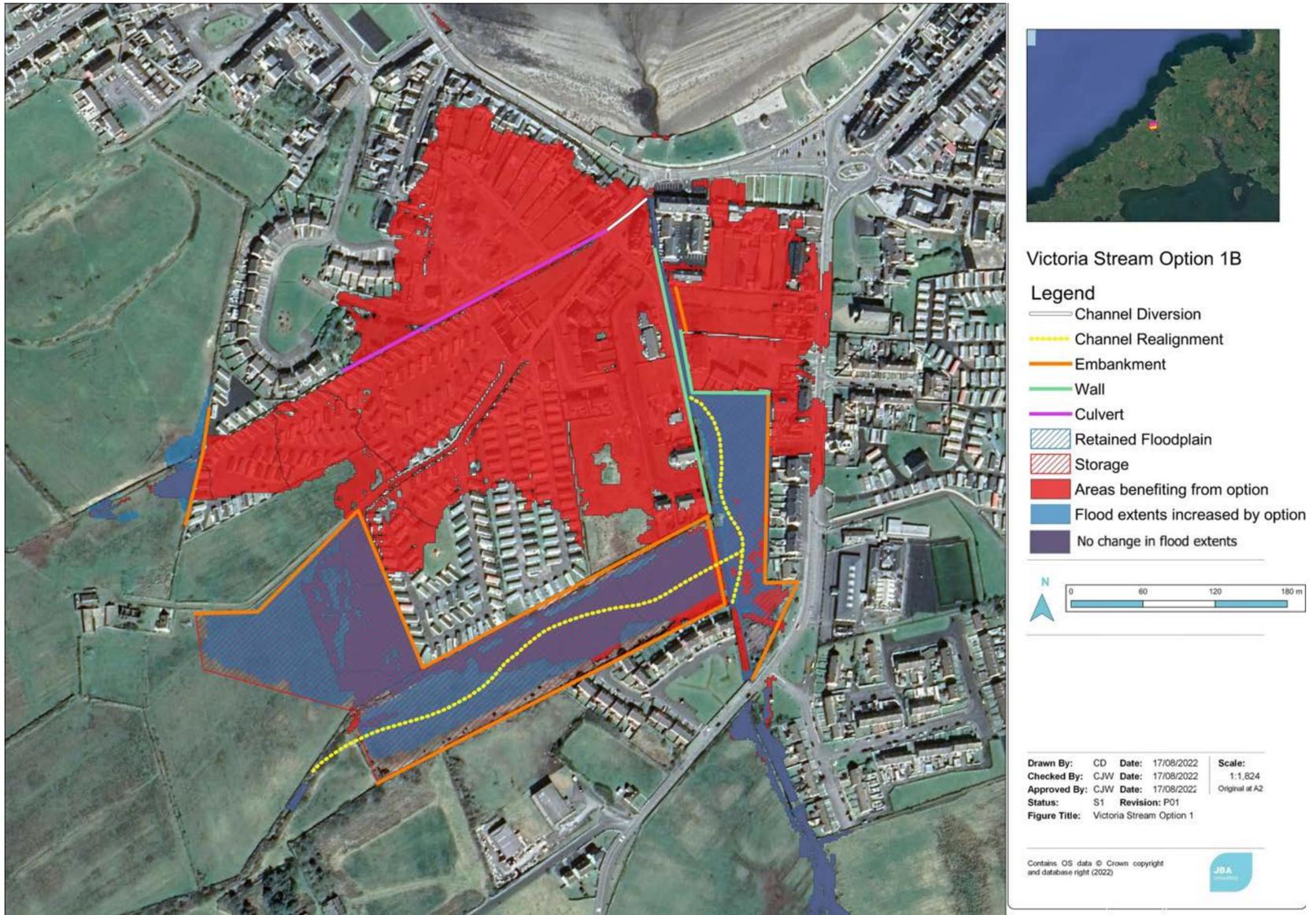
- Proposed defences protect a large number of properties from flooding
- Constructed wetlands have ecological and water quality benefits

### Constraints

- Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors

# Victoria Stream Option 1B

## Containment / Storage / Culverting



### What's involved?

- Combination of Walls and embankments along the Victoria Stream
- Construction of new culvert along the Well Stream
- Channel Realignment and containment in the Church Road field
- Channel Realignment and storage in the form of constructed wetlands on the Western Tributary
- Construction of new outfall culvert from Well Stream to Victoria Stream

### Benefits

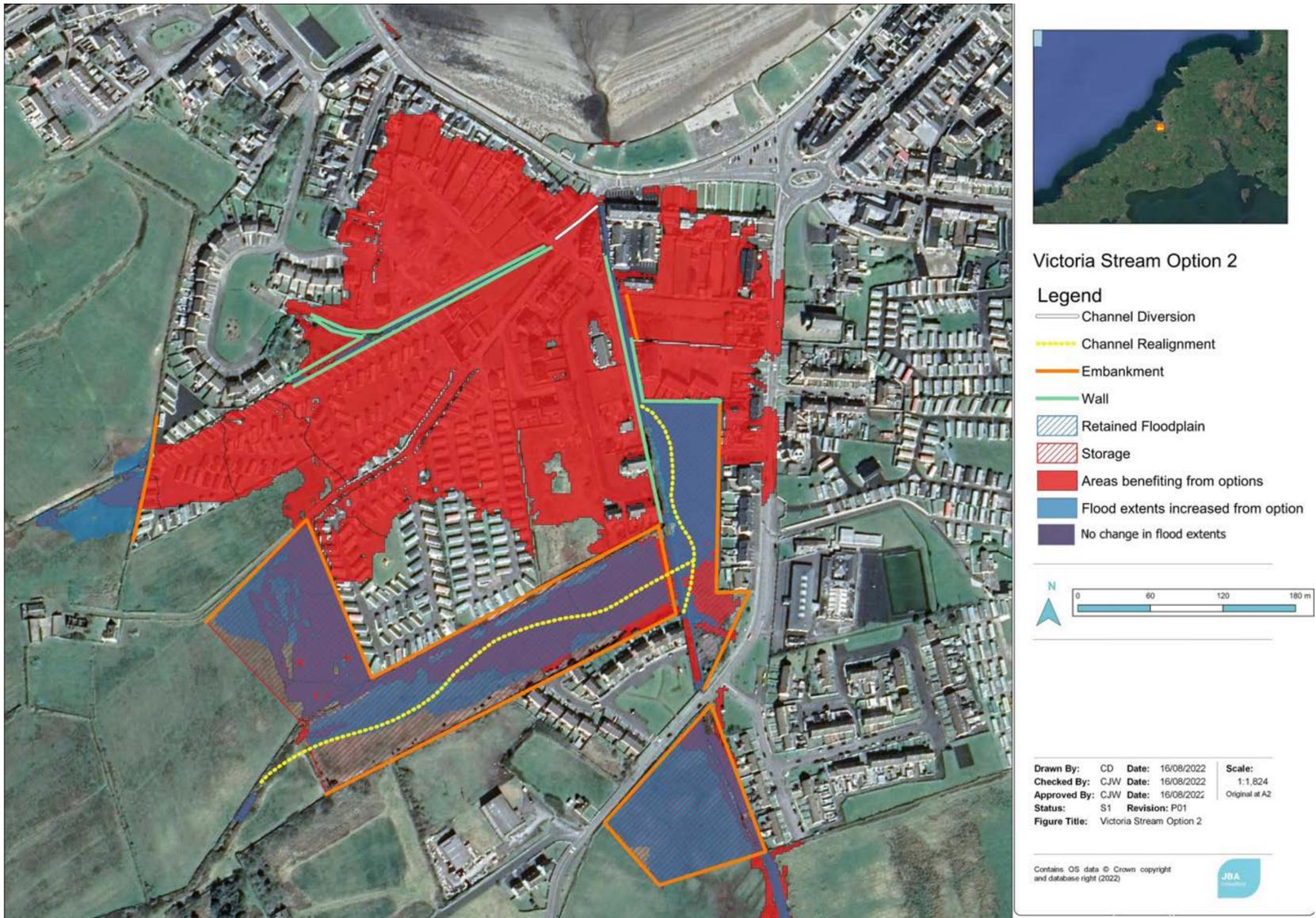
- Proposed defences protect a large number of properties from flooding
- Constructed wetlands have ecological and water quality benefits

### Constraints

- Increases flood extents upstream of the Well Stream and Victoria Stream, however this area is greenspace so has no risk receptors
- Embankment heights on Western Tributary become excessive (>2m)

# Victoria Stream Option 2

## Additional Storage



### What's involved?

- Combination of Walls and embankments along the Well Stream and the Victoria Stream
- Channel Realignment and containment in the Church Road field
- Channel Realignment and storage in the form of constructed wetlands on the Western Tributary
- Construction of new outfall culvert from Well Stream to Victoria Stream
- Storage in the form of constructed wetland on the Victoria Stream

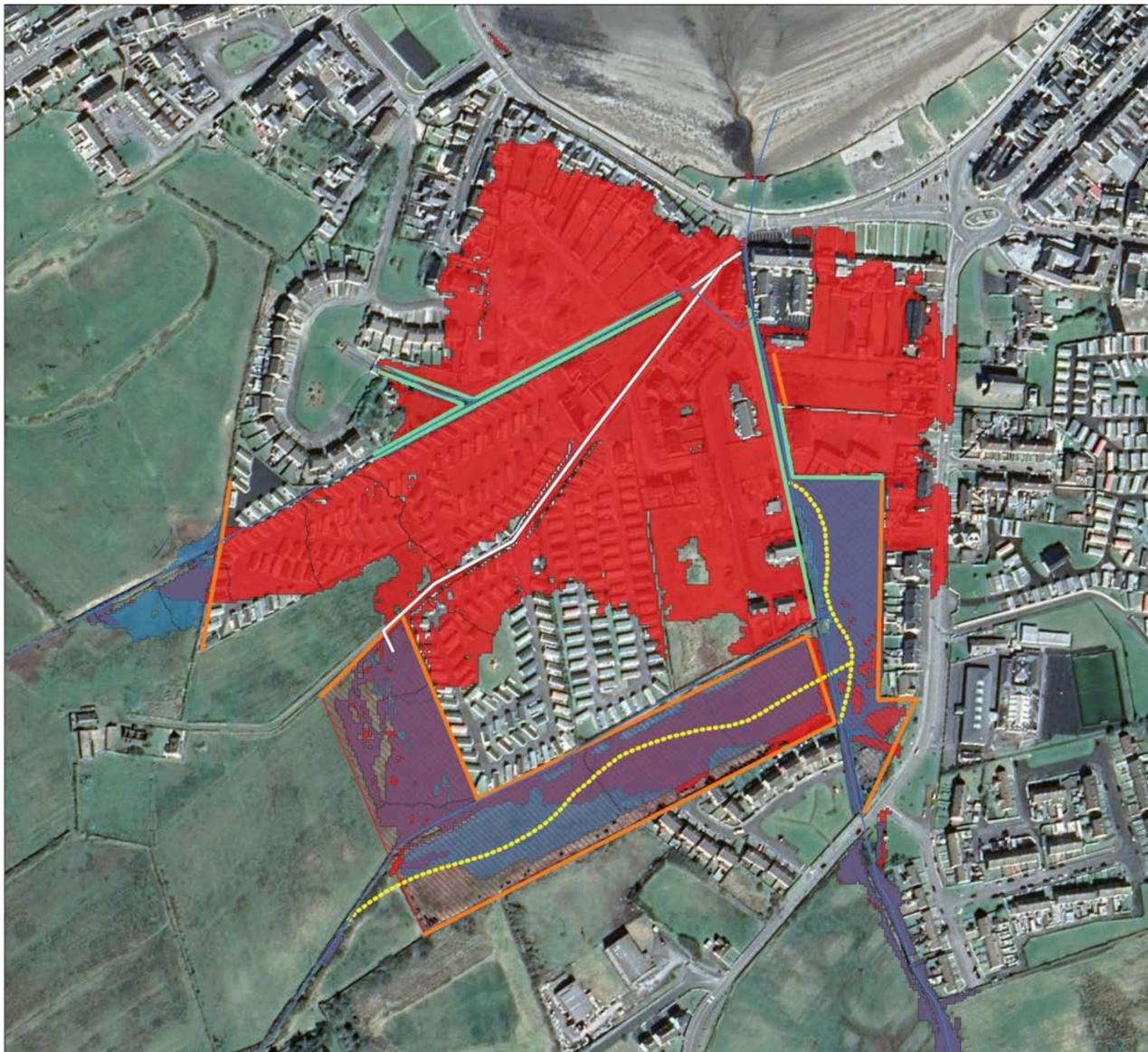
### Benefits

- Proposed defences protect a large number of properties from flooding
- Additional storage area reduces the height of walls/embankments needed downstream by 0.12m
- Constructed wetlands have ecological and water quality benefits

### Constraints

- Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors
- Requires use of land which is not in floodplain for storage

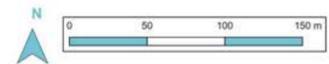
# Victoria Stream Option 3 Diversion



Victoria Stream Option 3

### Legend

- Channel Diversion
- - - Channel Realignment
- Embankment
- Wall
- ▨ Retained Floodplain
- ▨ Storage
- ▨ Flood Extents increased from option
- ▨ Areas benefiting from option
- ▨ No change in flood extents



Drawn By: CD Date: 05/07/2022 Scale: 1:1,792  
 Checked By: CJW Date: 05/07/2022 Original at A2  
 Approved By: CJW Date: 05/07/2022  
 Status: S1 Revision: P01  
 Figure Title: Victoria Stream Option 3

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## What's involved?

- Combination of Walls and embankments along the Well and the Victoria Stream
- Channel Realignment and containment in the Church Road field
- Channel Realignment and storage in the form of constructed wetlands on the Western Tributary
- Construction of new outfall culvert from Well Stream to Victoria Stream
- Culvert Diversion from Western Tributary Storage area to Well Stream outfall culvert into the Victoria Stream

## Benefits

- Proposed defences protect a large number of properties from flooding
- Diversion culvert results in reduced the height of defences needed downstream on Victoria Stream by 0.17m
- Constructed wetlands have ecological and water quality benefits

## Constraints

- Increases flood extents upstream of the Well Stream, however this area is greenspace so has no risk receptors
- Increased height of embankments needed at Western tributary by 0.55m

