



## Newcastle Biodiversity and Community Group

30<sup>th</sup> August 2021

### Submission to the Wicklow CDP 2021 – 2027

To whom it may concern, Newcastle Community and biodiversity group welcomes the opportunity to contribute to the County Development Plan 2021-2027.

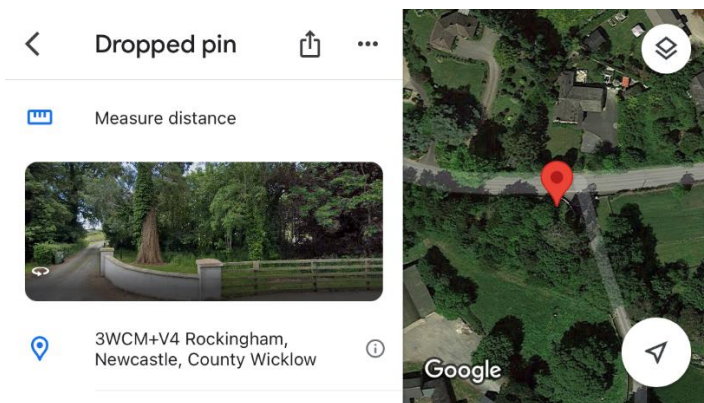
#### 1. Biodiversity

*1.1 "Existing mature trees and boundaries throughout the settlement shall be retained when considered appropriate by the planning Authority and integrated appropriately into any new development." CDP 2021 - 2027*

In relation to conservation of Greenways in Newcastle Townland, The Newcastle community retains the right to protect all our mature and young trees that grow within the townland boundary of Newcastle. Trees provide shelter and food for wildlife, including bats (a protected species) birds and insects. We have a vested interest in retaining all the trees in Newcastle because they are also providing the village with a distinct visual amenity while also improving the health and wellbeing of our population. We request that the Newcastle Residents Association and The Biodiversity Group are consulted before any trees are considered for removal or any hedgerows and boundaries are considered for removed for development.

There are several distinct, mature trees within the settlement boundary of Newcastle. The trees that have been selected are in lands that are potential development zones and should be protected under Section 205 of the Planning & Development Act 2000. Its vital to prohibit the cutting down, topping, lopping or wilful destruction of these trees without the planning authority's consent to protect the character and landscape of our village.

## TREE: Giant Conifer at the gate to Oaklands



Our aim as the newly formed Biodiversity group is to conserve and protect the rich and diverse flora and fauna in our townland while also undertaking community projects to enhance biodiversity but more importantly increasing awareness with residents while also giving them skills to use in their private gardens.

Action 1: We aim to conserve our natural environment and enhance biodiversity of the townland. To do this the reduction in toxic weed spraying within the residential community is essential, this will lead to increasing the insect and supporting the bird population. We ask that no weed killer containing glyphosate is used in any council lands in the townland while also discouraging its use in existing and future developments in the village particularly developments that are close to the river.

1.2 We refer below to the following article in An Beachaire Vol. 76 No.8 August 2021 author Anne Hutton, Beekeeper.

*"Hedgerows... are richly diverse in the variety of creatures that they support, and, in the functions they provide for humans, plants and animals alike. Structurally their root systems provide flood control by regulating water movement and run-off, and they trap silt and prevent soil erosion. As a wildlife habitat they support 55 species of birds during the breeding season, providing food and shelter. Just like humans, bumble bees need food and shelter, but their habitat is being decimated annually, and in many areas destroyed. What is needed now is to restore our hedgerows, the natural food - gathering corridor for pollinators and wildlife: and a means of sequestering carbon from the atmosphere."*

Action 2: Therefore, within the buffer zone placed at 10 metres from the Newcastle River we propose that native Irish hedgerow of hawthorn, blackthorn and elder tree are planted, also allowing any wild native plants to grow within the hedge. These actions will attract wildlife and further enhancing the biodiversity of the riverbank which leads to the critical SAC of Murrough/ Wetlands.

1.3 Referring to the Town Park, or Village Green and future development, the residents of Newcastle request that any planting undertaken will support the guidelines of biodiversity, therefore planting only native Irish trees, for example, Mountain Ash, Willow and Irish heathers. Irish insects need Irish native plants to feed off, breed and lay their eggs on and to hibernate in.

Action 3: We request that no non-native plants are added to the green buffer zones either. The river that is part of the Vartry Catchment and is flowing into the SAC of the Murrough/ Wetlands. We know that the river supports trout, eels and flounder. We are also aware that it is vulnerable to pollution from the waste treatment centre on Sea Road.

Action 4: We request that a walkway is not directly created beside the river as it is inevitable that human interference will occur and wildlife will be disturbed or killed in this process. At the present time the banks provide some shelter for birds and mammals on the riverbank, a walkway for people will not enhance the biodiversity of the river. Any walkway that is placed in the vicinity of the river a 10m + buffer zone as stated in action 2 must be in place along with prevention measures of human access to the banks and river.

1.4 Street Lighting is another issue regarding wildlife and our insect populations in the village. Studies have found that public street lighting is having a detrimental effect on the population of insects. An RTE report in May 2021 noted a study undertaken by researchers led by Thomas Davies at the University of Exeter, England. They found that five species, including ants, ground beetles and woodlice, were far more abundant in patches under streetlights compared with patches between streetlights. Streetlights also drew more predatory and scavenging insects. Tiny changes among insect populations reverberate up the food chain, boosting some species but imperilling others. Many academics have voiced concern about the introduction of next-generation street lighting that uses metal halide or light-emitting diodes. These technologies emit light over a broader range of wavelengths to which

organisms are sensitive, The British journal 'Biology letters' state that 'the paucity of information available on the environmental impacts of artificial light pollution does not currently reflect the potential scale of this problem'. We welcome the phasing out of Low-Pressure Sodium lights (SOX) and introduction of LED lanterns which according to the council reduce energy public lighting emissions by 60%. However, the introduction of these new lights must be done in a way that protects our insect and wildlife population in the immediate areas around the lights.

Action 5: We request that lighting is kept to a minimum and ideally within housing areas the lighting can be motion censored. Directional covers need to be placed on all lights in the townland and on the roads and amber coloured lighting is the least interruptive to insects.

The introduction of the new LED lanterns onto our streets and housing developments could have an impact on the character of the village, for this reason its vital that all new developments in the area and existing upgrading of public lighting follow strict guidelines and take into consideration their impacts on the wider community and landscape.

Implementing practical guidelines like the guidelines in the Dark Sky report 'Best Practice Public Lighting' authored by Professor Brian Espey is essential. These guidelines are:

1. Every light needs to be justifiable
2. Limit the use of light to when it is needed
3. Direct the light to where it is needed
4. Reduce the light intensity to the minimum needed
5. Use light spectra adapted to the environment
6. When using white light, use sources with a "warm" colour temperature (less than 3000K)

Source: [https://www.darksky.ie/wp-content/uploads/2020/04/BestPracticesInPublicLighting\\_BEspey2020.pdf](https://www.darksky.ie/wp-content/uploads/2020/04/BestPracticesInPublicLighting_BEspey2020.pdf)

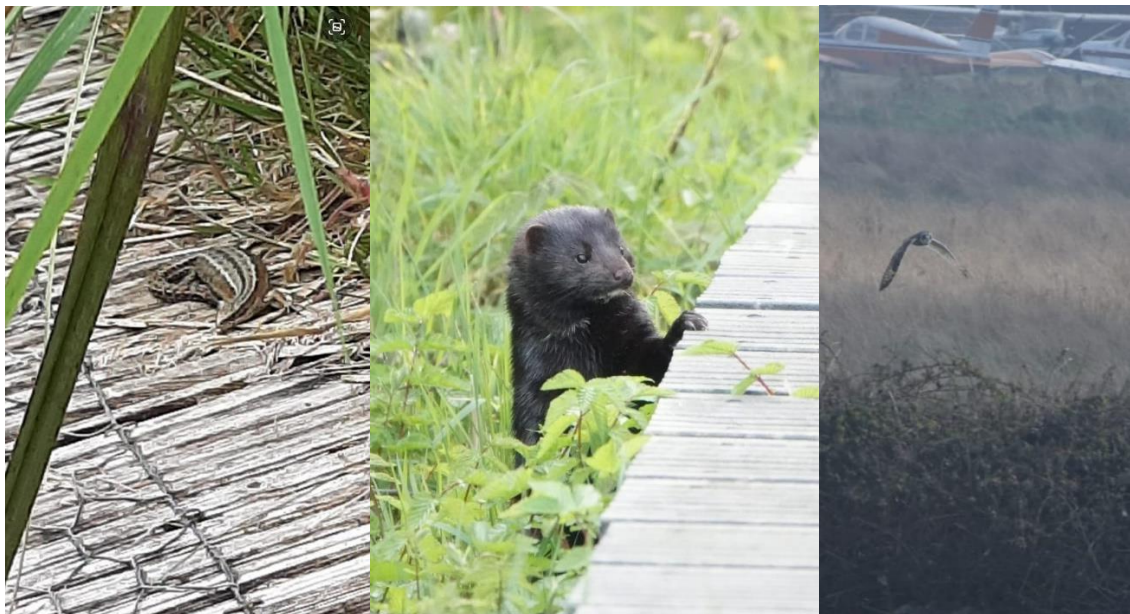


Action 6: The village would benefit hugely from traditional style street lighting instead of more modern poles and fittings which can create an urban feel to the village. In Glenealy village examples of these streetlights can be found.

## 2.4 Protecting and enhancing our river



The Newcastle River (10N01) flowing through Newcastle, leads to the sea. It is a lovely, although discreet feature of our village, but it is much more. It shelters a treasure of biodiversity i.e. brown trout, minnows, flat flounder, lampreys, eels, mayfly nymphs, caddisflies and Riffle Beetles. In addition, found feeding along the river are herons, ducks, kites, buzzards, and other various birds. There are also bats, hedgehogs, foxes and otters and other mammals. We believe that the environment along the Newcastle River must be protected from human actions that would have a detrimental effect on the biodiversity.





There are a number of stakeholders who live and work near the banks of the river e.g. farmers, several residential properties, the village wastewater treatment plant, the local GAA club and village publican. At present, the river in Newcastle is under pressure from the activities of some of these stakeholders e.g. the village's wastewater treatment plant is near capacity. The level of ortho-phosphate in the river is at its highest near the plant.

#### Newcastle 2020 Ambient Monitoring Data

Location	Sample Date	Temperature °C	pH pH units	BOD mg/l	Total Ammonia as N mg/l	Ortho-Phosphate as P mg/l	Nitrite as N mg/l	Conductivity µS/m	DO mg/l	DO % sat	TON as N
Upstream	21/01/2020	7.7	8.1	1.5	0.03	0.02	0.005	318	12.3	103	3.1
Upstream	13-May-2020	9.5	8.4	1	0.04	0.02	0.008	450	12.3	108	2.5
Upstream	13-Aug-2020	15.6	8.3	0.7	0.02	0.035	0.006	514	10	100	1.6
Upstream	7-Oct-2020	11.1	8.2	0.9	<0.02	0.02	0.005	370	11.2	102	3.8
	Mean			1.025	0.026	0.024					
	95%ile			1.425	0.039	0.033					
Downstream	21/01/2020	7.6	8.2	1.6	0.03	0.023	0.005	103	12.3	103	3.1
Downstream	13-May-2020	9.5	8.5	1	0.02	0.027	0.01	461	12.5	110	2.9
Downstream	13-Aug-2020	15.6	8.2	0.8	0.02	0.042	0.01	531	9.9	100	2.4
Downstream	7-Oct-2020	10.9	8.1	1.1	<0.02	0.023	0.006	375	11.3	102	3.2
	Mean			1.125	0.021	0.029					
	95%ile			1.525	0.029	0.040					

Note: Where the concentration in the result is less than the limit of detection (LOD), a value of LOD/sqrt(2) was used in calculating the mean and 95%ile concentrations.

The macroinvertebrate community was examined and scored an unsatisfactory Q3 indicating poor quality.

Date Report Generated: 18/05/2021

#### NEWCASTLE (WICKLOW)

10N01

Date Surveyed (last survey year only): 16/07/20

#### Biological Quality Rating (Q Values)

Station Code	1990	1994	1997	2000	2003	2006	2009	2012	2015	2018	2020
RS10N010400	4	3-4	3/0	4	3						
RS10N010600	3	3	3	3-4	3	3-4	3-4	4	4	3-4	3

#### Most Recent Assessment:

The paucity of pollution sensitive macroinvertebrate species and dominance of pollution tolerant species indicated an unsatisfactory decline to poor ecological conditions on the Newcastle Stream in July 2020. Compaction of the river bed with excessive siltation was observed.

#### Station Details

Station Code	Station Location	WFD Waterbody Code	Easting	Northing	Local Authority
RS10N010400	NEWCASTLE (WICKLOW) - Br S of Bloomfield	IE_EA_10N010600	329093	204027	Wicklow County Council
RS10N010600	0.5km d/s Newcastle Br	IE_EA_10N010600	330257	204019	Wicklow County Council

Actions from some residents living beside the banks of the river, such as the disposal of their green waste onto the banks is a serious cause of concern.



Leaking water pipes in the river.

Some stakeholders are unaware of the river's delicate ecosystem and that certain practices by them may be harming the biodiversity in the river. In the future, we wish to ensure that the quality of the river improves and does not suffer the consequences of human activities (from grass cuttings dropped on the banks or use of pesticides to dishwashers and septic tanks leaking into it).



Spraying of weed killer on riverbank during the summer 2021.

We are concerned about the pressure of new housing developments on the river; that there would be no policing of new developments in Newcastle to ensure the protection of the river's biodiversity. For example, a recent building site in the village has interfered with the riverbank, yet it is clearly stated in the planning's approval not to interfere with the river and biodiversity.



On 28/07/2021, there was a significant fish kill on a section of river on the sea road, from Hunter's Leap to the bridge entrance at Leamore House, when over 50 fish perished. Facing this section of river is the local GAA club, the village's wastewater



treatment plant and some residential houses. Inland Fisheries were alerted to the incident and staff members from Wicklow County Council were on site very quickly.



Testing from water samples proved inconclusive and no known cause was found. This was a major disaster for the river's delicate ecosystem, as fish stocks were wiped out in this section of the river. This has had the detrimental effect of species like otters and herons losing a food source. The young children of the village do ask where the fish has gone. The quality of the water is one of our concerns, this recent fish kill showed how much damage can be done in a matter of hours, how difficult it is to identify the source even if all involved react quickly.

There was also several other stream interferences of the river, like a white foam over the last month but this was the worst.



A village biodiversity group was created this year. A number of members are focusing on the river and its ecosystem, willing to train and take action, communicate with the stakeholders and people in the village. Several institutions responsible for the management and protection of rivers in Ireland have been contacted. They will now provide the biodiversity group with knowledge and training to help manage the river and its riverbanks. This biodiversity group will work with stakeholders to build awareness of how fragile our river is and help to improve and change practices that affect it. We would like to see an independent person, with a river management background, appointed during any developments that happen near Newcastle River to ensure that our river is protected.

We would like to more attention paid to the river and sea areas in Newcastle in relation to planning applications. This is to ensure that the boundaries on both sides of a river are large enough to protect the river's ecosystem and that wildlife does not lose access to the river area from the ground or air. We would like the riverbanks to be protected from public interference. We would like planting in all new developments to be done with biodiversity at the forefront and that house owners cannot remove it. We would like to see any developments near the river and sea area to have rain-harvesting systems so as not to have rain run off that could have pollutants. In addition, surface rainwater from roads should not enter the river.

Newcastle Village is still a country village, and we have a rich natural biodiversity in and around it at present. Even with being a small village, we still have threats to the local biodiversity, and we must not let this get worse. We must conserve and protect what we have and improve on the areas that need improving. We believe that the establishment of the village's biodiversity group will play an integral role in this endeavour. We plan to raise awareness by communicating and increasing signage in the village. More people will be enrolled and trained to collect data such as the river temperature and keep an eye on the immediate surroundings. The river ends its course in the bird sanctuary where precious birds and frogs, otters and insects thrive; we need to keep it safe.

## 2. Flood Risk Management

According to a 2019 Newcastle Village Health Check Report, a public consultation with residents found that a dominant theme emerged consisting of several environment concerns. The report found that there is a strong environmental concern surrounding the threat of flooding in the village, considering the vulnerability of Sea Road and the village in this regard. Heavy flooding did occur in 2015 in some low-lying areas in the village. However, some sections in the village are prone to frequent flooding.



*Flooding on R761 north of village in February 2021.*



*Flooding on Sea Road between Hunters' Leap and the boat repair yard in February 2021.*

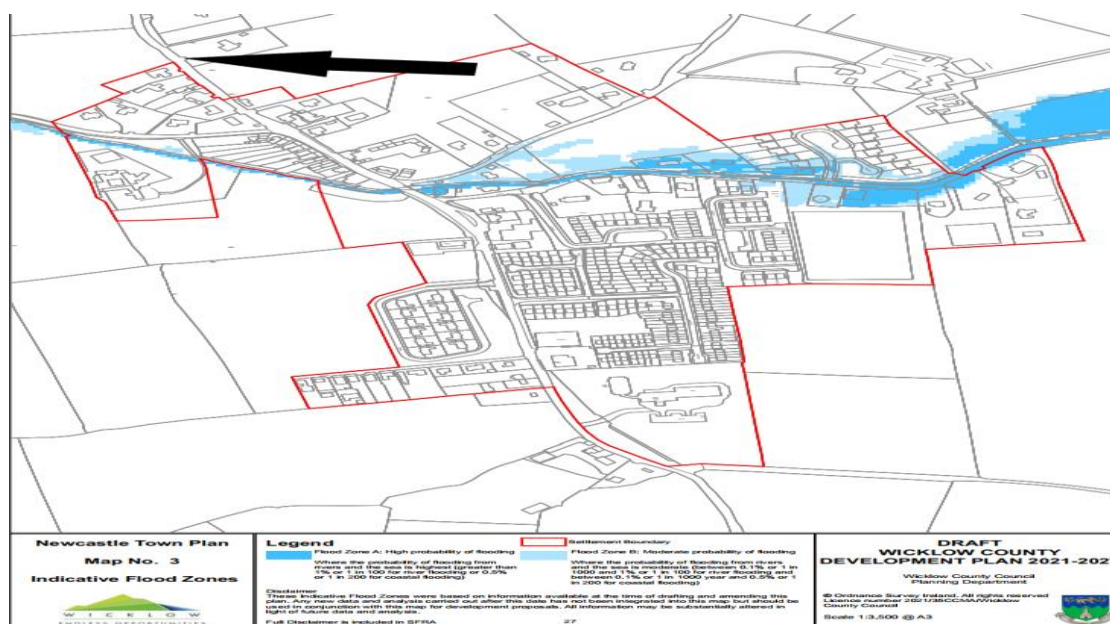
**Action:** The Newcastle River 10N01 needs to be managed and protected due to a history of flooding on the Sea Road. The current climate change crisis means that it will only get worse if action is not taken.

We request the implementation of recommendations in the OPW Flood Risk Management Plans (FRMPs), including planned investment measures for managing and reducing flood risk. That support and facilitation of flood management activities,

projects or programmes is provided, that each flood risk management activity be examined to determine actions required to embed and provide for effective climate change adaptation as set out in the Climate Change Sectoral Adaptation Plan for Flood Risk Management.

We request that the natural coastal defences adjacent to the village - Newcastle beach, Breeches salt marsh and estuary lands are protected and to ensure that their flood defence/management function is not put at risk by inappropriate works or development.

We request an update on the existing county indicative flooding zone for the village to include areas prone to flooding to the north of the village along the R761 as indicated:



We request that the zoning of land that has been identified as being at a high or moderate probability of flooding (flood zones A or B) be in accordance with the requirements of the Flood Risk Management Guidelines and the ‘justification test for development plans’. Those applications for new developments or significant alterations/extension to existing developments in an area at risk of flooding follow the ‘sequential approach’ as set out in the Flood Risk Management Guidelines. That an appropriately detailed flood risk/drainage impact assessment is required with all planning applications, to ensure that the development itself is not at risk of flooding and the development does not increase the flood risk in the relevant catchment (both up and down stream of the application site), considering all sources of flooding.

Where flood risk may be an issue for any proposed development, a flood risk assessment be carried out that is appropriate to the scale and nature of the development and the risks arising. We request that development be prohibited in river flood plains or other areas known to provide natural attenuation for floodwaters.

Furthermore, with regard to development we request that Wicklow County Council ensure the implementation of Sustainable Urban Drainage Systems (SUDS) in accordance with the Wicklow County Council SUDS Policy to ensure surface water runoff is managed for maximum benefit. We request that proposed developments meet the design criteria of each of the four pillars of SuDS design - Water Quality, Water Quantity, Amenity and Biodiversity.

We request the promotion of the use of green infrastructure as landscape features in new developments to provide storm/surface runoff storage and reduce pollutants, as well as habitat, recreation and aesthetic functions. For developments adjacent to the river, we request that any structures (including hard landscaping) must be set back from the edge of the watercourse in accordance with the guidelines in 'Planning for Watercourses in the Urban Environment' by Inland Fisheries Ireland.

### 3. Environmental Sustainability In the Village of Newcastle

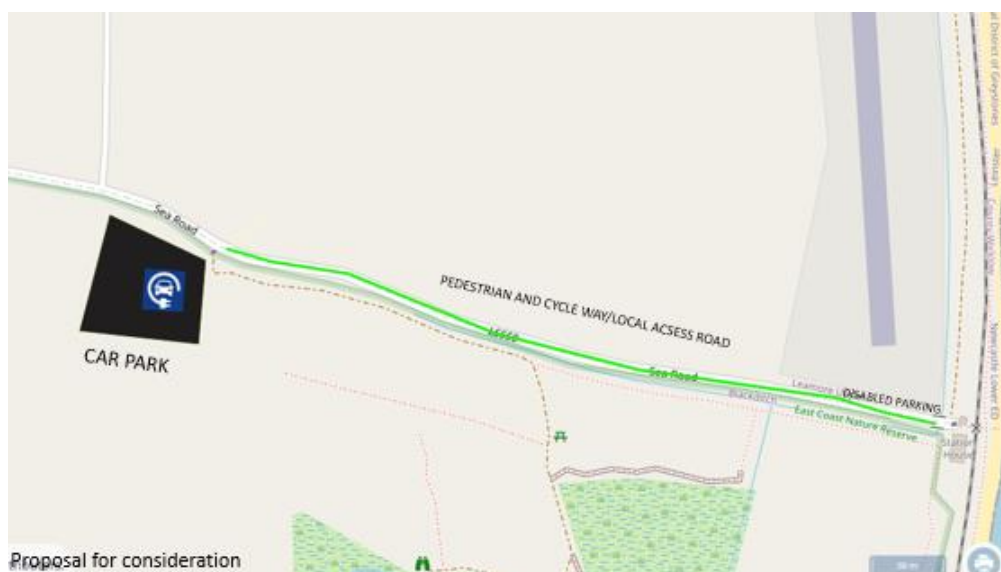
In this section we outline plans for the village in terms of sustainability and give light to initiatives already in place in the area.

- The Community Centre plans to apply for a grant for solar panels for hot water and electricity.
- There are water barrels collecting rainwater off the roof of the Community centre.
- We shall apply wood/bark chipping to the surface of all flower beds and paths to reduce water evaporation and therefore save water usage.
- Water collected from the community centre will be transferred to another larger container for the community garden which is planned to be created in Autumn 2021.
- A free food initiative is already started with the six raised beds of vegetables grown behind the community centre, the community garden
- There will be another free food initiative with an apple and plum orchard and fruit bushes along with raised beds of vegetables.
- Perennial planting of pollinator friendly plants has already been initiated in the village this summer and will continue, providing a pollinator corridor in the village.
- A Biodiversity Group is working in the village to ensure the protection and growth of greenways, tress, hedgerows, and the surveying of the Little Vartry River to maintain water quality. We are also building awareness in the neighbourhood by circulating a monthly newsletter.
- The natural environment of the Wetlands in the Bird Sanctuary on Sea Road is maintained to a high quality by Bird Watch Ireland.
- Bins are provided to remove Dog fouling and an application has been made to site two more bins in the village, on Church Road and Sea Road.
- We have begun a practise of No Glyphosate weed spraying by Residents Association and have found a high concentrate Vinegar to use instead.
- A free Book exchange will be provided in the village to recycle books.

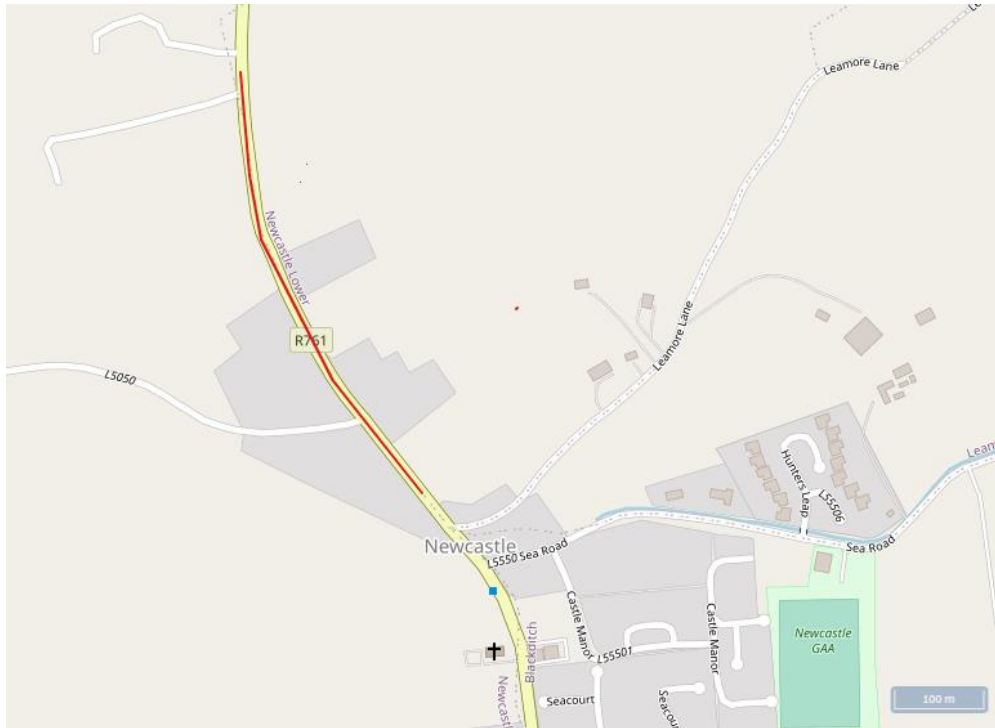
- An initiative for bringing awareness to commercial and private houses do not use plastic bags and to find alternatives instead to reuse paper or Biodegradable bags.
- Invest in Tumble Compost bins for the Community Garden.

#### 4. Road Infrastructure and Safety

- The Sea Road L5550 (vehicle speed concerns impacting on safety of the many pedestrians that use the road, traffic and parking management at the beach, possibility of a carpark that would facilitate birdwatch, beach, train station (future) and Airfield therefore limiting the need for vehicles at the beach access point.



- Traffic calming measures on approach into the village from the north on R761. The speed goes from 80km/hr to 60km/hr then to 50km/hr in a very short stretch leading to excessive speeding when coming into the village. The map represents the stretch that should be examined, and vehicle usage and speed should be surveyed to design a safer road for all users. This stretch contains no footpath until L5050 links to the primary road into Newcastle village.



## 5. Housing and Design

The design of new housing and development is a key factor in protecting the character and identity of a place. In our village, any new development must incorporate the existing buildings and landscape.

- Newcastle Village is a rural low-lying development featuring vernacular architecture.
- We request that international architecture of a modular style is not used within any of the developments that the skyline is kept low to two storeys.
- There is a well-documented flood plain along the Little Vartry River in Newcastle. With climate change resulting in changes in our weather it's a known fact that the level of the river will rise during the winter and during rainstorms. Therefore, the developments proposed should reduce the area of hard landscaping within and increase the area of greenspace within the developments to allow for natural soakage of rainwater thus reducing the flooding of local houses in the centre of the village.

**END OF SUBMISSION**