

Kilkenny County Council
Comhairle Chontae Chill Chainnigh

**Chief Executive's
Report on Submissions
received
to the
County Kilkenny Climate
Change Adaptation Strategy**

Date: August 2019

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1.0 Introduction

1.1 Purpose of the Report

Kilkenny County Council (KCC) has prepared a draft Climate Change Adaptation Strategy 2019-2024 (CCAS). The KCC Climate Change Adaptation Strategy forms part of Ireland's national strategy for climate adaptation as set out in the National Adaptation Framework (NAF) which was produced under the provisions of the Climate Action and Low Carbon Development Act 2015.

It is tasked with mainstreaming climate change adaptation over time into all functions, operations and services of the local authority.

The draft strategy includes a range of actions across 5 No. High Level Goals including:

- Energy & Buildings;
- Flood Resilience;
- Resource Management;
- Transport;
- Nature-Based Solutions & Communities.

As part of the process of making this strategy, a period of public consultation was undertaken from 7th June to 12th July inclusive. 14 no. submissions were received within the timeframe specified.

This report on submissions received summarises and details the outcome of the public consultation stage and contains the following:

- List of persons or bodies who made submissions or observations on the Draft Climate Change Adaptation Strategy;
- Summary of all issues raised by the persons or bodies in the submissions or observations; and
- Consideration, response and recommendation to the issues raised.

1.2 Background

Ireland's first statutory National Adaptation Framework (NAF) was published in January 2018. This sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015. The NAF outlines a whole of government and society approach to climate adaptation in Ireland. Under the NAF, a number of Government Departments are required to prepare sectoral adaptation plans in relation to a priority area for which they are responsible. Each Local Authority is also required to make a local adaptation strategy with an expected timeframe for completion by 30 September 2019.

As the level of government closest to local communities and enterprise and as first responders in many emergencies, it is acknowledged that local authorities are uniquely placed to effect real positive

change with respect to delivery of the national transition objective to a low carbon and a climate resilience future.

The local authority adaptation strategy takes on the role as the primary instrument at local level to:

- (i) ensure a proper comprehension of the key risks and vulnerabilities of climate change;
- (ii) bring forward the implementation of climate resilient actions in a planned and proactive manner;
- (iii) ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of the local authority.

1.3 Next Steps

The submissions received during the timeframe specified for public consultation were examined and considered in this report in the context of their relevance and added value to the adaptation strategy.

Accordingly, amendments will be made to the provisions of the strategy in the form of new additional information and actions, supplementation or clarification of text, deletion of text and general grammatical and formatting enhancements.

Once finalised, the strategy must undergo assessment in accordance with the provisions of SEA regulations and the provisions of the Habitats Directive.

The final strategy, SEA Screening Report and Appropriate Screening Reports will be presented to Council for approval by the elected members.

The timeframe for completion of the strategy and approval by the members is 30th September 2019.

2.0 Public Consultation

2.1 Public Consultation

Public consultation on the draft Climate Change Adaptation Strategy was carried out over a five-week period from 7th June to 12th July, 2019 inclusive.

13 no. Submissions were received within the timeframe specified.

The following documents were subject to the public consultation process:

- The Climate Change Adaptation Strategy as guided by the Local Authority Adaptation Strategy Development Guidelines (Dec, 2018),
- The Strategic Environmental Assessment (SEA) Screening Report undertaken in accordance with the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004 as amended by S.I. 200 of 2011); and
- The Appropriate Assessment screening report undertaken in accordance with the requirements of Article 6(3) of the EU Habitats Directive (directive 92/43/EEC).

2.2 Details of the Public Consultation Process

Methodology used for consultation with key stakeholders:

- Newspaper Notice in the Kilkenny People and Munster Express
- <https://consult.kilkenny.ie>
- Reception, Kilkenny County Council, County Hall, John St., Kilkenny
- The Tholsel, Kilkenny City Area Office, High St., Kilkenny
- Callan Area Office, Clonmel Road, Callan, Kilkenny
- Castlecomer Area Office, Kilkenny St., Castlecomer, Kilkenny
- Ferrybank Area Office, Ferrybank Shopping Centre, Ferrybank, Co. Kilkenny
- Thomastown Area Office, Ladyswell, Thomastown, Kilkenny
- Engagement with adjoining Local Authorities: Tipperary County Council, Waterford County Council, Wexford County Council, Carlow County Council & Laois County Council
- The Climate Action Regional (CARO) engaged with the Departments responsible for the development of sectoral adaptation plans inviting them to review the local authority adaptation strategies and to make submissions.
- The CARO identified key high level stakeholders according to their importance and relevance to the subject matter of local authority adaptation strategies and invited them to make review the local authority adaptation strategies and to make submissions.

2.3 Submissions

The table below identifies the submissions to the strategy. The submissions will be examined in further detail in section 3.0 of this report.

A significant number of submissions are supportive of the necessity to take actions in relation to climate change. Many of the submissions made are beyond the purpose, scope and provisions of the Adaptation Strategy. Similarly, there are suggestions put forward relating to what is considered necessary at all levels of government - local, national and EU, as well as at the level of industry/business, sectors and under society to tackle climate change.

To avoid any ambiguity: Issues that do not sit with the scope of the strategy, that go beyond its scope but lie within the scope of the local authority and/or go beyond the functions of the local authority and are not directly related to the provisions of the draft strategy or adaptation actions will not be explored in detail in this report.

This CE report examines issues raised in the submissions in the context of their relevance to the purpose and scope of the adaptation strategy, clarifies issues in the context of the scope of the strategy and seeks to incorporate new/additional provisions where they are relevant and add value to the purpose of the strategy and its implementation. The table below lists the submissions received.

Reference No.	Name of Organisation / Person Making Submission
CCAS-1	OPW
CCAS-2	Irish Water
CCAS-3	Department of Agriculture, Food and the Marine
CCAS-4	An Taisce
CCAS-5	Kilkenny LEADER Partnership
CCAS-6	Gas Networks Ireland
CCAS-7	EPA
CCAS-8 & 9	Francis Micklem
CCAS-10	Noel Lawler Green Energy Solutions
CCAS-11	Ronan Beasley
CCAS-12	Lucy Glendinning
CCAS-13	Sadhbh O'Neill
CCAS-14	Kilkenny for Climate Action

3.0 Consideration of Submissions

Submissions received from National/Regional stakeholders:

Ref No.	Name
CCAS – 1	OPW
<u>Submission Summary:</u> <ul style="list-style-type: none">• Acknowledge risk of groundwater flooding in inland areas.• Include references to the Mid-Range and High-End Future Scenarios assessed under the CFRAM study.• Change reference for flood maps in Section 4.1.3• Unaware of future plans to collaborate with KCC on Flood Awareness Campaigns.• Alter wording to Flood Defence and Relevant Legislation in Section 5.2.• Alter list of Relevant Resource Management Legislation to remove unrelated acts.	
<u>Chief Executives Response:</u> <p>KCC welcomes and notes the submission from the OPW. Close co-operation will be required between the local authority and the 9 wide range of other stakeholders, including the OPW sectors in order to coherently respond to the challenges climate change presents.</p> <p>Issues raised in this submission will be taken into consideration. The Climate Change Adaptation Strategy will benefit from these observations and they will be included in the final strategy as appropriate.</p> <p>Kilkenny County Council acknowledges the work of the OPW and would be interested in conducting future projects such as Flood Awareness Campaigns in partnership with the OPW.</p>	
<u>Chief Executives Recommendation:</u> <p>Alter wording in Table 3.3 to include inland vulnerability to groundwater flooding.</p> <p>Include narrative in Section 4.1.4: “The National CFRAM Programme and parallel projects include the assessment of risk for two potential future scenarios; the Mid-Range Future Scenario (MRFS) and the High-End Future Scenario (HEFS). These detail parameters such as extreme rainfall depths, peak flood flows and mean sea level rise for river basins throughout Ireland.”</p> <p>Change reference in Section 4.1.3 to floodinfo.ie</p> <p>Amend wording in Section 5.2.3 to acknowledge areas of the county that are not suitable to soft engineering solutions.</p> <p>Change title of Relevant Legislation in Section 5.2.3 to ‘Relevant Plans/Legislation’.</p> <p>Remove unrelated acts under Section 5.3.3 ‘Relevant Legislation’, as appropriate.</p>	

Ref No.	Name
CCAS – 2	Irish Water
<u>Submission Summary:</u> <ul style="list-style-type: none"> • Welcomes the publication of the KCC Climate Change Adaptation Strategy. • Looks forward to implementing measures in the Government Climate Action Plan and Draft Climate Change Sectoral Adaptation Plan: Water Quality and Water Services Infrastructure. 	
<u>Chief Executives Response:</u> <p>KCC notes the submission from Irish Water and welcome their willingness to address the issues of climate change. Close co-operation will be required between the local authority and Irish Water (or relevant sector) in order to coherently respond to the challenges climate change presents.</p>	
<u>Chief Executives Recommendation:</u> <p>Submission from Irish Water is noted and no further action is required.</p>	

Ref No.	Name
CCAS – 3	Department of Agriculture, Food and the Marine
<u>Submission Summary:</u> <ul style="list-style-type: none"> • Increased inclusion of agricultural sector in CCAS. • Remove reforestation from CO₂ emission list in Section 1.2.3. • Risk of increased number of wildfires due to climate change. • Increased risk of slurry run-off and soil sediment into watercourses. • Concerns regarding escalation of spread of non-native and invasive species. • Inclusion of agricultural sector as a stakeholder in energy section. • Acknowledge agricultural sectors role to play in Nature-Based Solutions. 	
<u>Chief Executives Response:</u> <p>KCC welcomes this submission from the Department of Agriculture, Food and the Marine and acknowledges the importance of including all sectors in the County in the preparation of the Strategy, including in particular prevalent sectors such as agriculture.</p> <p>Specific comments in the submission, to include wildfires, land spreading, water quality and non-native invasive species are noted.</p> <p>The CCAS acknowledges that Kilkenny and Tipperary County Councils are the lead authorities for the national shared service, Local Authority Waters Programme (LAWPRO), that supports and co-ordinates the implementation of the River Basin Management Plan for Ireland 2018-2021. LAWPRO supports the implementation of local measures to address water quality issues, such as landspreading from the agricultural industry.</p> <p>KCC is committed to developing a cross-section invasive species action plan, as noted in Section 5.5.7.</p>	

Chief Executives Recommendation:

Include narrative under Section 2.1.4 to include the agricultural sector in the CCAS.

Alter wording in Section 1.2.3 to remove reforestation from greenhouse gas sources.

Include farming community under Section 5.1 'Stakeholders to work with and influence'.

Alter wording of Action 4 in Section 5.5.7 to "Support the greening of businesses, festivals and agricultural practices through workshops and campaigns"

Ref No.	Name
CCAS – 4	An Taisce

Submission Summary:

- Encourage use of natural materials.
- Consider additional recycling facilities.
- Encourage use of public transport.
- Commitment to get to near zero carbon emission by 2050.
- Encourage biodiversity in the agricultural industry.

Chief Executives Response:

KCC acknowledges and welcomes the submission from An Taisce.

Resource Management: KCC has a comprehensive waste prevention and recycling programme within the Council and strives to reduce consumption while minimising the waste produced in KCC's buildings and operations. Central to preventing the production of waste is changing the procurement of products used in Council buildings and operations. Protection of the county's natural resources is regarded as necessary to sustain economic growth, as noted in Section 2.1.4. A priority for KCC is to review procurement procedures and identify opportunities to source local, environmentally-friendly products for use in its operations. As part of the Southern Region Waste Management Plan KCC aims to achieve a recycling rate of 50% of Municipal Waste by 2020. Additional recycling facilities will be developed where required as outlined in Section 5.3.3.

Public Bus Service: KCC has been aware and fully committed to reducing the impact of transport on its environment. Through the County Development Plan KCC has developed strategies and policies that promotes the integration of land use and transportation that work with a range of stakeholders to improve transportation in the city and county. KCC is working with the National Transport Authority (NTA) to develop the first public city bus service. The commencement of the bus services within the city & environs is a significant commitment to the provision of sustainable transport choices in Kilkenny. KCC will monitor these services in relation to the public service contract requirements and will actively pursue options for consolidating and improving these services.

Acknowledge Agricultural Role in Biodiversity: This all of local authority strategy provides for the mainstreaming of climate change considerations into all functions, activities and services of the Council. It is further noted that the Department of Agriculture Forestry and Marine is developing a *Climate Change Adaptation Plan* as part of the National Adaptation Framework. The overarching

goals of this plan include embedding adaptation planning in agriculture and to raise awareness of climate change. The DAFM acknowledges it has the potential to play a central role in the potential development of green infrastructure initiatives and protecting biodiversity. KCC is fully committed to liaising with the DAFM in the delivery of sectoral adaptation actions stemming from their respective adaptation plans for County Kilkenny.

Energy efficiency: The recently published All of Government Climate Action Plan sets out the 2030 targets a 30% reduction in carbon emissions by 2030. Kilkenny have set a more ambitious target of 40% by 2030, this is reported through the SEAI Monitoring and Reporting system.

Chief Executives Recommendation:

Submission from An Taisce is noted and no further action is required.

Ref No.	Name
CCAS – 5	Kilkenny LEADER Partnership

Submission Summary:

- Include action to develop community engagement with CCAS.
- Support the sustainable development of infrastructures.
- Commends CCAS on easy-to-understand language.
- Reword section titles on introductory graphics pages in Section 5.
- Incorporate 4 specific actions into CCAS.

Chief Executives Response:

KCC wishes to acknowledge and appreciates the submission of broad-ranging actions and observations from Kilkenny LEADER Partnership.

Community Engagement & Sustainable Development: The draft CCAS was placed on public display, inviting community groups and stakeholders to submit their suggestions, observations and concerns. Actions detailed in Section 5.5.7 include a 'Community' section which details numerous community engagement actions which encourage sustainable development.

Nature-Based Solutions: As noted in Section 5.5.2, nature-based solutions are the first-stop action for climate adaptation. Existing nature-based solutions currently deployed in County Kilkenny include the protection of the Castle Park in Kilkenny City as a central green space and ecological corridor to the River Nore.

Chief Executives Recommendation:

Change wording on Section 5 introductory graphics pages from 'Stakeholders to work with and influence' to 'Stakeholders to work with in partnership and co-create solutions'.

Include an action in Section 5.5.7 – 'Explore the opportunities within County Kilkenny to create, improve and enhance ecosystems through nature-based solutions.'

Ref No.	Name
CCAS – 6	Gas Networks Ireland

Submission Summary:

- Promotion of anaerobic digestion plants and renewable gas infrastructure in Kilkenny.
- KCC should consider renewable gas as a viable option to improve energy efficiency across the Council.
- Consider Compressed Natural Gas (CNG) fuelled buses.
- Support the development of CNG infrastructure in Kilkenny.
- Consider the role that renewable gas and CNG can play in reducing CO₂ emissions.

Chief Executives Response:

KCC welcomes the submission from Gas Networks Ireland.

Anaerobic Digestion: KCC is supportive of Anaerobic Digestion in County Kilkenny as a sustainable source of fuel, with 2 anaerobic digesters already operating in the county. Supporting objectives are included in Section 10.6.9 of the Kilkenny County Development Plan 2014-2020.

Renewable gas: KCC is fully supportive of an extension to the existing gas network to include significant population centres around the county, as per the Kilkenny County Development Plan 2014-2020, as it has the potential to reduce carbon emissions and improve energy efficiency throughout both the city and county, and also in the Councils own operations.

CNG: KCC acknowledges the role CNG and other renewable energy sources can play in reducing carbon emissions and will investigate the feasibility of incorporating such energy resources into future energy efficiency projects. Alter wording in Section 5.4.7. accordingly.

Chief Executives Recommendation:

Alter wording in Action 2 of Section 5.4.7 to include more options than just electric vehicles: "Explore the potential for expanding the KCC fleet with energy efficient amenity vehicles".

Include action in Section 5.1.2: "Investigate the feasibility of developing anaerobic digestion and renewable gas infrastructure in County Kilkenny."

Ref No.	Name
CCAS – 7	EPA

Submission Summary:

- Consider an additional adaptation goal to recommend behavioural changes through sustainable policy's and measures;
- Opportunities should be sought to align with and collaborate with adjacent local authorities;
- Consider an additional goal reflecting the need for effective implementation of relevant related regulations policies, plans and strategies;
- Section 5.5.7 Tree Management Action 8 consider amending text to native tree planting;

- Recommend additional action to protect natural and cultural assets.

Chief Executives Response:

KCC welcomes the submission from the EPA.

Support Climate Adaptation actions through behavioural changes: KCC is fully committed to supporting and encouraging behavioural changes in Kilkenny through the implementation of policies and measures. This is reflected in chapters 9 & 10 of the Kilkenny City & Environs Development Plan 2014-2020, and Kilkenny County Development Plan 2014-2020 respectively. Actions to encourage behavioural changes specifically noted through actions detailed in section 5.3.3 and section 5.5.7

Tree Management: KCC acknowledges the importance of increasing tree cover throughout Co. Kilkenny, particularly in encouraging the plantation of native species to help nurture our natural ecosystems. This is reflected in action 9 of section 5.5.7 which outlines our plans to 'Assess and encourage, where possible, pollinator friendly and native tree planting throughout Kilkenny'.

Chief Executives Recommendation:

Include action in Section 5.2.3: "Monitoring of flood & storm damage to historic structures in collaboration with National Monuments Services and other national & local agencies.

Include the following text in Section 1.2.6: "This adaptation strategy commits to aligning with national commitments on climate change adaptation. It must be noted that the process of making 12 sectoral adaptation strategies (identified in the NAF) is running concurrently with the making of local authority strategies. Once published, however, any relevant recommendations or actions will be incorporated into this strategy. For both the preparation of this strategy and the implementation of actions, opportunities will be advanced to align with and collaborate with adjoining local authorities including Laois, Tipperary, Waterford, Wexford & Carlow".

Submissions received from all other persons:

7 other submissions were received from the following persons:

Ref No.	Name
CCAS – 8 & 9	Frances Micklem
CCAS – 10	Noel Lawler Green Energy Solutions
CCAS – 11	Ronan Beasley
CCAS – 12	Lucy Glendinning
CCAS – 13	Sadhbh O'Neill
CCAS – 14	Kilkenny for Climate Action

The submissions raise a range of issues. While there are 175 distinct comments/issues put forward, many are similar across the submissions. In this regard, in keeping with good practice and for ease of readability, the comments/issues have been grouped according to a common subject topic/theme as listed hereunder and the CE response and recommendation is given in each case. It must be noted that a number of submissions raise issues that sit outside the scope of the Climate Adaptation Strategy (e.g. issues in relation to national taxation policy; issues in relation to national planning policy; etc.) Such issues will be referred on to the relevant authority for consideration. The order in which issues are dealt with below does not in any way indicate an order of priority.

Subject topics

- Mitigation, Adaptation & Implementation
- Waste Management
- Business & Local Authority
- Biodiversity & Chemicals
- Sustainable Transport
- Other Sectors
- Drainage & Flood Risk Management
- Budget for Strategy & Funding
- Training
- Energy
- Miscellaneous
- Green Economy & Eco Tourism

Mitigation, Adaptation & Implementation

Summary of issues raised:

- Strategy has sidestepped mitigation.
- Feels CCAS is lacking a strategic, cohesive plan with ambitious actions.
- How will the CCAS be implemented?
- Proposed strategy does not go far enough regarding mitigation actions.
- Emphasis on adaptation over mitigation.

Chief Executives Response:

Mitigation: The focus of the strategy is on Adaptation. It is important to understand its context.

Adaptation Planning provides for a clear understanding of the risks presented by climate change and the current levels of vulnerability to such risks. We are adjusting to a new climate. The most immediate risks associated with climate change to Kilkenny County Council are those associated with extreme weather events including increased rainfall events, storms, heat/drought and other extremes. We have experienced ever increasing extremes and their impacts on the service delivery of the Council through events such as Storm Ophelia October 2017, Storm Emma March 2018 and the summer heat extreme of 2018.

As acknowledged in Chapter 1, mitigation plays a large role in combatting climate change. However, the focus of this strategy plan is on adaptation. That is not to say mitigation is not still an important part of the strategy.

Ambition: Adaptation planning is crucial to understanding that adaptation achieves more than mitigation in terms of reducing the damage from climate change. However, it is acknowledged that mitigation is better understood and people feel more comfortable in pursuing mitigation measures, with adaptation measures sometimes viewed as being low-ambition as a result. Nevertheless, under the remit of the National Adaptation Framework and for the rationale set out above, KCC is required to undertake this adaptation strategy. This provides for a greater understanding of the vulnerabilities and risks to Council services from the impacts of climate change and to start building climate resilience within the organisation and at local/community level.

Implementation: The Climate Action Steering Group has identified tasks necessary to implement the actions contained within the strategy. These tasks are outlined in Section 6.1 and their performance will be evaluated at quarterly meetings to ensure the planned outcomes are being achieved and new adaptation actions are devised as necessary. A Climate Action Officer has been appointed by KCC. As part of their role, they shall oversee the implementation of the actions outlined in the CCAS, and continual performance between meetings.

Chief Executives Recommendation:

Submissions are noted, no action is required for strategy.

Waste Management

Submission Summary:

- Encourage innovative projects to recycle plastics.
- Outlaw use of single-use plastic.
- Ban single-use plastics in KCC and ensure zero-waste policy at public events.
- Reduction rather than recycling needs to be the new emphasis.
- Litter awareness strategy to be revised.

Chief Executives Response:

Initiatives: KCC notes the various suggestions submitted. In partnership with Waste Enforcement Region Local Authority (WERLA), KCC developed and implemented numerous anti-dumping and recycling initiatives such as Bikes for Africa, Mattress Day and Bulky Furniture Day to name but a few. KCC actively encourages further innovative projects and intends to liaise and work with other bodies and agencies responsible for resource management.

Plastics: There are some issues noted in the submission which are outside the remit of KCC (e.g. outright banning of single-use items etc.) As of 31st March 2019, single-use plastics were banned in all government buildings countrywide. KCC aims to extend this ban to all Council events, as outlined in Section 5.3.3.

Tackling plastic waste is recognised as a particular challenge. KCC understands the Climate Action Plan has set clear targets on Recycling, Food Waste and Plastic – single use items. These targets will be translated for practical implementation at regional and local levels as part of the role of the Council in managing waste and driving awareness.

Reduction: Repair Directory is an ongoing initiative by KCC started in 2015 to promote the concept of repair as one method to reduce waste generation. The directory template was adopted by other County Councils as a result of its success in Co. Kilkenny leading to Roscommon and Limerick developing their own Repair Directories. A website was developed to enable access to the directories nationwide. KCC also supports the Men's Shed initiative who in turn are involved in upcycling and other reuse activities.

Litter Awareness: Waste management in Ireland is regulated by the Waste Management Act 1996, as amended. Kilkenny County Council is a partner local authority with Carlow, Waterford, Wexford and Tipperary County Councils, who collectively have developed a Joint Waste Management Plan for the South East Region. KCC is committed to encouraging litter awareness through supporting the National Spring Clean with An Taisce and through supporting Tidy Towns through the Community Environment Action Fund as outlined in Section 5.5.7 of the CCAS.

Chief Executives Recommendation:

Include an action in Section 5.3.3: "KCC carries out an environmental advertisement campaign to promote awareness among all age groups of ongoing and future waste reduction and recycling projects on an annual basis".

Business & Local Authority

Submission Summary:

- Support renewable energy and low impact projects.
- Create commercial opportunities within Kilkenny.
- Appoint Director of Climate Change and Adaptation within KCC.

- Encourage sustainable, environmentally friendly practices in County Kilkenny.

Chief Executives Response:

KCC is fully committed to supporting renewable energy and low impact projects, creating commercial opportunities within the county and encouraging sustainable, environmentally friendly practices in Kilkenny. This is reflected in chapters 9 & 10 of the Kilkenny City & Environs Development Plan 2014-2020, and Kilkenny County Development Plan 2014-2020 respectively. Further to this, Section 5.1.2 of the CCAS details numerous sustainable, renewable, low energy and environmentally friendly actions.

Climate Change is currently under the directorship of the Director of Planning, Economic and Environmental Services of Kilkenny County Council. KCC has put in place a Strategic Policy Committee (SPC) that will have responsibility for Environmental and Climate Action. In 2019 KCC became the partner authority with The Eastern & Midlands Climate Action Regional Office (CARO), highlighting KCC's commitment to being a frontrunner in effecting change in terms of adaptation and mitigation.

Chief Executives Recommendation:

Submissions are noted, no further action is required for strategy.

Biodiversity & Chemicals

Submission Summary:

- Outright cessation of spraying and use of chemicals in County Kilkenny.
- Tree management strategy crucial to encouraging biodiversity and native tree planting in Co. Kilkenny.
- Encourage the use of nature-based solutions to flooding and recognise the importance of biodiversity.
- Cease use of glyphosate by KCC.
- Reduce mowing in public spaces.

Chief Executives Response:

Chemicals: Concerns raised regarding the use of Glyphosate as a herbicide are noted. It should be noted that glyphosate was re-licensed by the EU in 2017 for a five-year period to allow time for further research on the chemical and to explore other effective options available at reasonable cost. If there are any further changes to glyphosate authorisations in Ireland, KCC will take the required action.

In the interim, it should be noted that work is at an early stage of advancement within the Council to pilot the use of alternatives to Glyphosate at specific sites across the county. Such work includes exploring the use of alternatives and examining cost effectiveness, success and practicalities of using these alternatives.

It is outside the remit of KCC and the CCAS to enforce the outright cessation of spraying across County Kilkenny. However, it is a policy of KCC to encourage biodiversity by minimising the use of

all types of chemical spraying on public lands. Indeed, the use of chemical weed killer by KCC has dramatically reduced in recent years.

Tree Planting: KCC acknowledges the importance of increasing tree cover throughout Co. Kilkenny, particularly in encouraging the plantation of native species to help nurture our natural ecosystems. This is reflected in action 9 of section 5.5.7 which outlines our plans to 'Assess and encourage, where possible, pollinator friendly and native tree planting throughout Kilkenny'.

Flooding & Biodiversity: The adaptation strategy very much acknowledges the role that the natural environment, biodiversity and ecosystem services play in both adapting and mitigating climate change. This is set out in Section 5.5 Nature-Based Solutions & Communities. The actions of Section 5.5.7 seek to explore the impacts and consequences of climate change on the natural environment and to gain a better understanding of its effects. Through adaptation measures it also seeks to supplement work already being done within the Council to promote and conserve biodiversity. It tasks the Council's Biodiversity Plan to integrate climate change considerations also. The actions contained within the KCC adaptation strategy will facilitate coordination with the Biodiversity Sectoral Adaptation Plan undertaken by the Department of Culture, Heritage and the Gaeltacht which sets out complimentary actions to increase the resilience of natural systems to climate change. Action 6 of Section 5.2.3 outlines how KCC aims to explore the potential of soft engineering methods in future flood defence schemes, therefore encouraging nature-based solutions to flooding.

Biodiversity is highly vulnerable to the impacts of climate change and its capacity to adapt is lower compared to other vulnerable sectors. It is imperative that not only the Council but all actors, sectors and communities recognise their role in reducing the pressures on biodiversity, protecting and restoring ecosystem services and contributing to adaptation measures to increase resilience to climate change when and where possible.

It is currently KCCs policy to minimize mowing in public spaces where practical to facilitate pollinators to encourage biodiversity throughout the county.

Chief Executives Recommendation:

Change the timeline for action 9 in section 5.5.7 from medium to short, and change the lead department from the Parks Department to Multi-departmental.

Sustainable Transport

Submission Summary:

- Encourage the development of a bus scheme in Kilkenny.
- Encourage reduced use of car travel and promotion of walking, cycling and public transport infrastructure.
- Improve public transport connectivity between urban and rural areas.
- Renewed focus on the pedestrianisation within Kilkenny city centre.

Chief Executives Response:

The development of public transport is critical in achieving more sustainable travel patterns and a reduced reliance on the car. KCC is currently working with the National Transport Authority (NTA) to develop the first public city bus service which is due to roll out in November 2019.

In recent years, KCC has worked in partnership with the Age Action Committee to design and install age-friendly bus shelters around various towns in county Kilkenny.

Promotion of public transport infrastructure is a priority of KCC with actions in section 5.4.7 reflecting this. Actions 6, 7, 8, 9, 14 and 16 of this section reiterate KCCs commitment to promoting public transport infrastructure.

KCC is committed to improving public transport connections between urban and rural areas of Kilkenny. This is evident through the continued roll-out of age friendly bus shelters around county Kilkenny.

KCC is committed to enhancing the pedestrian and cyclist experience in Kilkenny city centre. Action 17 of Section 5.4.7 outlines KCCs plan to promote pedestrian and cyclist priority within the city centre.

Chief Executives Recommendation:

Change timeframe of action 8 in Section 5.4.7 from medium to short.

Amend wording of Action 17 in Section 5.4.7: "Promote pedestrian priority within the city centre".

Other Sectors

Submission Summary:

- The Climate Change Adaptation Plan should be amended accordingly so the policies and initiatives mirror those of the National Climate Change Plan.
- Remove destructive industries from County Kilkenny.
- Provide funding and support for organic, low-impact projects.
- Use national money to help biodiversity and society recover.

Chief Executives Response:

Climate Action Plan: The all of government Climate Action Plan 2019 - *To Tackle Climate Breakdown* was published on Monday 17th June 2019. There is strong commitment under new governance arrangements to update the plan annually, to track performance of targets and revise or update the actions as necessary. To drive the successful and practical implementation of Climate Action towards achieving 2030 and 2050 targets, the Minister for Communications, Climate Action and Environment will bring forward a legislative framework through a new Climate Action Act.

Within the 12 Sectors described in the Plan, the Public Sector is identified as having a significant role in '*Leading by Example*' to not only just reduce their own emissions but to inspire climate action across communities and society. Local Government in particular is recognised for its pivotal role in stimulating climate action at community level.

It is acknowledged that much of the focus for the local authority sector to date, has been on Adaptation Planning. Local authorities are now prescribed to widen their scope and act as a catalyst for much wider change. It is important that the Kilkenny County Climate Change Adaptation

Strategy recognises the purpose of the Climate Action Plan and the role intended for Local Authorities to meet targets and contribute to the national climate ambition. It is recommended to include an action to reflect same in the adaptation strategy.

National actions & funding: While KCC supports the concept of the greening of industries through grants and national subsidies, it is not within the remit of KCC or the CCAS to initiate change of this magnitude and these changes can only be made using a top-down national approach.

Chief Executives Recommendation:

Include action in Section 5.3.3: “Compliment the practical implementation of actions arising from the National Climate Action Plan – to Tackle Climate Breakdown (as revised and updated annually), across the broad range of functions of the local authority to achieve the national climate ambition”.

Drainage & Flood Risk Management

Submission Summary:

- Encourage reuse of greywater in private and commercial developments.
- Concerns regarding future development causing flooding.

Chief Executives Response:

Greywater: The Planning Authority will normally require rainwater harvesting and grey water recycling in new large scale developments and in smaller schemes except where not practical or feasible. Further plans to reuse greywater are outlined in Section 5.2.3 of the CCAS where plans to implement sustainable urban drainage guidelines in Council buildings where feasible will be investigated.

Future development: As detailed in the Kilkenny City & Environs Development Plan 2014-2020 and the Kilkenny County Development Plan 2014-2020, flood zones are geographical areas within which the likelihood of flooding is in a particular range and they are a key tool in flood risk management within the planning process as well as in flood warning and emergency planning. There are three types or levels of flood zones defined for the purposes of the guidelines. As part of the planning guidelines, where flood risk may be an issue for any proposed development, a flood risk assessment shall be carried out that is appropriate to the scale and nature of the development and the risks arising.

Chief Executives Recommendation:

Include narrative in Section 5.2.2: "The impacts of flooding can be devastating to properties, business, infrastructure, cultural heritage and the natural environment. It is likely that climate change will have a considerable impact on flood risk in the future for Kilkenny, with projections indicating that the number of heavy rainfall days per year may increase, which could lead to an increase in flood risk across the city and county.

While there is considerable uncertainty associated with most aspects of the potential impacts of climate change on water quality and flood risk, it will be prudent from this point on for the Council to take the potential for change into further account in dealing with water quality, the design and development of local drainage systems and flood risk management measures."

Budget & Funding**Submission Summary:**

- Assign contracts on an environmental, not financial, merit.
- Concerns regarding urgency of implementation of actions.
- Disappointed to note large number of actions with budget to be confirmed.

Chief Executives Response:

Contracts: It is important that green procurement become a mainstay for the Councils climate adaptation strategy. Kilkenny County Council will continue to expand its use of Green Public Procurement and will aim to seek to procure goods, services and works with a reduced environmental impact throughout their life cycle. New action below to be included.

Urgency and funding: It is important to note that the focus of this strategy is on adaptation in the context of the functions and activities of Kilkenny County Council. We must be conscious of the restraints within the local authority and therefore each action must be prioritised on an individual basis. Unfortunately, not all actions can be carried out in the short timeframe, but it is imperative that they are included in the action lists.

Chief Executives Recommendation:

Insert new action in Section 5.3.3 'Provide information to the private sector on low carbon/green priorities for prospective tenderers to the Council and evaluate tenders against green credentials and environmental record'.

Training, Green Economy & Tourism**Submission Summary:**

- Liaise with schools in relation to climate change and biodiversity.
- Education of public to recycling, climate change, waste reduction and tree management.

- Support business the emergence of a Green Economy in Kilkenny

Chief Executives Response:

Schools: Action 3 of Section 5.5.7 of the CCAS outlines KCCs commitment to supporting climate change adaption in schools with the Green Schools Flags, biodiversity initiatives and pollinator friendly plans.

Public education: This Climate Adaptation Strategy is cognisant of the role that KCC must play in increasing citizen awareness and participation in climate solutions and the unique position that local government holds in interacting with its citizens. Additional action included below.

Green Economy & Tourism: While Climate Change poses many challenges there will be increasing economic and business opportunities to be exploited. Responses to climate change will drive innovation and job creation in sectors such as energy production, advance manufacturing and sustainable tourism. In this regard, the Eastern & Midlands CARO in conjunction with the Local Enterprise office (LEO) Network will host a conference on 9th October next entitled: "Creating Economic and Business Opportunities from Climate Change". Section 5.5.7 action 4 states "Support the greening of businesses, festivals and agricultural practices through workshops and campaign"

Chief Executives Recommendation:

Change timeframe for action 3 of Section 5.5.7 from medium to short.

Include action in Section 5.5.7: "Through the Environment Section of Kilkenny County Council, KCC will build expertise, capacity and increase knowledge base through relevant training programmes on Climate Change and its implications on the operations/functions of Kilkenny County Council

Training courses/modules/programmes may include:

- Climate Change awareness training to staff, elected members and communities
- Invasive species awareness and management training
- Relevant safety training
- Training for outdoor staff in service delivery in flood situations"

Energy

Submission Summary:

- Improve energy efficiency within KCC.
- Council energy efficiency and greenhouse gas database to be confirmed.
- Concerns Home Energy Saving Kits are of little benefit.

Chief Executives Response:

Energy efficiency: KCC has an obligation to report annually on their energy performances. The public sector in Ireland is tasked with reducing their energy consumption by 33% by 2020 and 50% by 2030. The annual reporting entails compiling full data of their previous years' energy

consumption and the SEAI prepare a report on energy efficiency in the public sector to DCCAE. Based on the preliminary 2018 report, KCC has reached the target of 33%. KCC will strive to reduce their energy consumption and reach the 2030 target of 50% ahead of schedule.

Database: The recently published All of Government Climate Action Plan sets out the 2030 targets for the public sector which includes a 50% reduction in energy by 2030 and a 30% reduction in carbon emissions by 2030. Kilkenny has set a more ambitious target of 40% by 2030, this is also reported through the SEAI Monitoring and Reporting system.

Home Energy Kits: KCC has a central role to play in raising awareness among the citizens of the county in respect of energy efficiency within the home. The roll-out of the Home Energy Kits will facilitate homeowners of all backgrounds to upskill in their energy efficiency awareness.

Chief Executives Recommendation.

Submissions are noted, no action is required for the strategy.

Miscellaneous

Submission Summary:

- Reduce the national herd.
- Confirmation why full SEA has not been required.
- Engage with farming community to reduce carbon footprint and encouraging biodiversity.

Chief Executives Response:

National herd: Reduction of the national herd is outside the remit of Kilkenny County Council.

SEA: The SEA Screening Report, carried out by Enviroguide Consulting on behalf of the Climate Action Regional Office (CARO) in respect of CCAS, is consistent with the process as recommended by the Department of Environment, Heritage and Local Government guidance document entitled *Implementation of SEA Directive 2001/42/EC Assessment of the Effects of Certain Plans and Programmes on the Environment November 2004*. The reasoning for the full SEA not being required to be carried out is outlined in Section 5 of the SEA document.

Farming engagement: It is outlined in Section 5.5.7 how KCC plans on supporting the greening of businesses and festivals through workshops and campaigns. KCC plans to use this action to further engage with the farming community to encourage green practices, biodiversity and a reduced carbon footprint for this sector. Action 4 to be amended as recommended below.

Chief Executives Recommendation:

Alter wording in action 4 of Section 5.5.7 to include engagement with the farming community.

4.0 Environmental Assessment

4.1 Strategic Environmental Assessment

The proposed amendments to the draft adaptation strategy as recommended in this report have been screened in accordance with the EC (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI 435 of 2004 as amended by SI 200 of 2011). Based on the pre-screening check and review of the amendments against the environmental criteria as set out in Annex II of the SEA Directive, a Strategic Environmental Assessment is not required. The screening report and final determination accompany the final adaptation strategy.

4.2 Appropriate Assessment

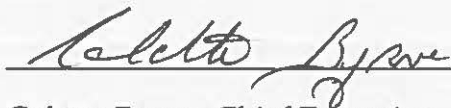
The proposed amendments to the draft adaptation strategy as recommended in this report were screened in accordance with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) to determine if they are likely to have a significant effect on any Natura 2000 sites. No significant effects were identified — the AA screening report accompanies the final adaptation strategy.

5.0 Summary of Recommendation of the Chief Executive

In total 14 submissions were received on the proposed material alterations to the Kilkenny County Council Climate Change Adaptation Strategy. These submissions resulted in the addition of 16 further actions.

This report has addressed all submissions received in relation to the proposed material alterations.

I recommend that the draft Climate Change Adaptation Strategy be adopted, with Material Alterations as proposed, in accordance with the requirements of the Planning and Development Acts 2000 (as amended)

A handwritten signature in dark ink, appearing to read 'Colette Byrne', is written over a horizontal line.

Colette Byrne, Chief Executive

5.0 Copy of Submissions Received

1. OPW



Engineering Services
Jonathan Swift Street
Trim
Co. Meath

Tel. (01) 6476000

8th July 2019

Mr. Frank Stafford,
Kilkenny County Council
Environment Section
County Hall
John Street

Re: Draft Statutory Climate Change Strategy 2019-2024 for County Kilkenny

Dear Mr. Stafford,

I refer to the Draft Statutory Climate Change Strategy for County Kilkenny published for consultation in June 2019 and set out below our observations with regard to flooding and flood risk management. These comments are made further to the enclosed OPW information, as issued to the each of the Four Regional Climate Action offices and for your consideration in preparing the Statutory Climate Change Strategy 2019-2024 for County Kilkenny.

The OPW welcomes the publication of the Draft Statutory Climate Change Strategy for County Kilkenny, the identification of flooding and extreme precipitation events as key climate impacts for the County, the recognition that climate change may increase flood risk in the future and that relevant actions should consider such future risk.

Kilkenny County Council has been working with the OPW over recent years on the National Catchment-based Flood Risk Assessment and Management (CFRAM) Programme, through which extensive detailed flood maps have been produced. The flood maps have been produced for potential future scenarios, taking into account the potential impacts of climate change, as well as for the current scenario. These future scenario flood maps, have been issued to local authorities and are available on-line from www.floodinfo.ie , should assist in the planning of appropriate adaptation strategies and measures.

Some more specific comments on the draft Plan are listed below:-

- Page 22:- Groundwater flooding only refers to tidal areas. Would inland areas and not influenced by tides also be at increased risk from Groundwater flooding for climate change conditions?
- Page 30:- Suggest to add a Legend to the Figure 1. Consider including climate change conditions (MRFS and HEFS). Please note that the Source should be floodinfo.ie and not Floodmaps.ie.
- Page 43:- An action identified in the infographic is "Flood awareness campaign with OPW".
Page 47:- Section 5.2.3:- Action 2 notes 'Liaise, collaborate and work in partnership with OPW, with regards to Flood Awareness Campaigns'. OPW is not aware of this. Would it be possible to forward any information you have on this, or a contact point for this within

OPW?

- Page 47:- Relevant Legislation: -Suggest to update heading to 'Relevant Plans/ Guidance/ Legislation'. Please note that County Kilkenny was assessed under South-Eastern and Suir CFRAM Studies and not the Eastern CFRAMs. Suggest addition of Planning Systems and Flood Risk Management Guidelines (OPW and DEHLG, 2009).
- Page 53:- Relevant Legislation:- There a number of items that may not be relevant to the Section 'Resource Management', e.g. Arterial Drainage Acts, Catchment-Based Flood Risk Management Plans (CFRMP), Planning System and Flood Risk Management Guidelines.

The OPW would be happy to provide any further information as necessary and/or to respond to any queries you may have in relation to the above submission.

Yours Sincerely,

PP 

Mark Adamson

Asst. Chief Engineer

Head of Flood Relief and Risk Management Division Enclosed

LOCAL AUTHORITY CLIMATE ADAPTATION STRATEGIES FLOOD-RELATED ISSUES FOR CONSIDERATION

In the preparation of the local authority climate adaptation strategies, there are a number of issues concerning flooding and flood risk management that the local authorities might consider, as described below.

Current Climate Impacts (Flood Risk)

In considering current climate impacts, some description might be provided concerning the existing level of flooding and flood risk, which could make reference to both past flood events and also, where available, predictive assessments of flood hazard and risk based on assessments such as the CFRAM Programme and the Irish Coastal Protection Strategy Study (ICPSS). Relevant information is available from a number of sources to inform this:

Past Floods (Occurrence and Impacts)

- PFRA Main Report (<https://www.floodinfo.ie/publications/?t=30>): Appendix C of this report provides a number of tables with information on past floods (up to 2011), sorted by county.
- Local authority reports for the review of PFRA (Floods 2012-2019): The OPW has recently written to each local authority requesting information on past floods since 2012, and the colleagues within each local authority preparing this material might be able to provide information on more recent past floods.
- Floodinfo.ie: This website provides information, including reports, on past floods – This was previously provided through Floodmaps.ie.
- LA Submissions to DHPLG on Emergency Response to Flood Events: The local authorities provide reports on the emergency response activities following major events to the Department, and these might provide useful information on past events, including the response / repair costs.

Predictive Assessments (Extents and Risks/Impacts)

- CFRAM Programme – Flood Maps: For the communities designated as 'AFAs' (300 nationally), detailed flood maps have been prepared and are available via floodinfo.ie

(the data would also have been provided in GIS format to the local authorities) showing areas currently prone to flooding, expected flood depths, etc.

- CFRAM Programme – FRMPs: For the AFAs, details of the existing risk for each community is provided in the FRMPs (Section 5.4 and Appendix E).
- ICPSS: Flood mapping for coastal reaches outside of the areas covered by CFRAM was prepared under the ICPSS, and is available on: <https://www.opw.ie/en/flood-risk-management/floodanderosionmapping/icpss/>

Potential Future Climate Impacts (Flood Risk)

Assessments of potential future flooding from rivers and the sea were also undertaken as part of the CFRAM programme (fluvial and coastal) and the ICPSS (coastal only). This is available in terms of future scenario floods maps (Mid-Range and High-End future Scenarios, as described in Section 5.5 of the FRMPs), and also the potential impacts / risks under such scenarios (Appendix E of the FRMPs) that are provided on a community-by-community basis. This can assist the local authorities in identifying communities that are particularly vulnerable to increases in risk under the potential impacts of climate change.

Relevant Adaptation Issues

There are a number of flood risk management or related activities that might be considered when preparing the objectives and actions for the adaptation strategies, as described below.

FRMPs / Flood Relief Schemes

- A number of flood relief schemes are currently under construction or in planning / design, and a further 118 schemes have been proposed in the FRMPs. Consideration might be given to the promotion and support of these schemes within the strategies, noting that the design and implementation of these schemes will take climate adaptation into account. All schemes are listed in the document 'Implementing the National Flood Risk Policy' (https://www.floodinfo.ie/static/floodmaps/docs/key_messages_page/Implementing_the_Gov_Nat_Flood_Risk_Policy_WEB.pdf).
- An action from the 2015 Adaptation Plan for Flood risk Management was for the local authorities to take climate change into account when developing Minor Works Schemes, and it would be welcomed if this were promoted in the strategies.

SUDS and Urban Storm Water Drainage

- The promotion of SuDS is now, we understand, supported or required in all local authority areas, and the promotion of these measures with due consideration for the potential increases in intense rainfall events would be welcomed in the strategies. Ideally, SuDS measures should be considered and designed at the community-level, rather than on a site-by-site basis.
- It is predicted that there will be more intense rainfall events under future scenarios, which will impact on the performance of the urban storm water drainage systems, and the local authorities might consider objectives or actions in this regard. The obligations of the local authorities under the SI transposing the 'Floods' Directive in relation to water-bearing infrastructure is relevant on this issue.

NWRM

- Natural Water Retention Measures represent a new approach to managing flood risk, and the OPW, with other partners, are engaged in research and pilot projects to develop our knowledge and capacity in this area. One potential benefit of these measures is as a means of climate adaptation, as well as other benefits such as enhancing water quality, biodiversity, sediment / soil management, the creation of amenity areas, etc.

Land Use Planning

- Forward planning and development management are critical for sustainable flood risk management in Ireland. In line with the Guidelines on the Planning System and Flood Risk Management, the potential impacts of climate change should be taken into account as part of the planning process. This should include increasing risks in areas already prone to flooding, and also areas that may become prone to flooding in the future. The OPW would very much welcome objectives and actions in the strategies requiring the consideration of climate change within the planning processes of the local authorities. This can be achieved in a number of ways, including:
 - ❑ Avoid Current / Future Flood Risk Areas (e.g., through land use zoning)
 - ❑ 'Vertical' Avoidance (e.g., specifying minimum flood levels and/or less vulnerable uses for basements / ground floors)

- ❑ Space for Future Protection (e.g., ensuring that space is provided within flood zoning / planning applications for flood protection works to account for the potentially increased extents and levels of flooding in the future)
- ❑ Flood Resistance / Resilience (e.g., specifying certain building standards for development / re-development in current and likely future flood prone areas).

Infrastructure

- Existing infrastructure owned by the local authorities may be subject to increased risk from flooding in the future. The future scenario flood maps provide information on the increased extents, depths, etc. under the two future scenarios assessed that may assist the identification of potentially vulnerable assets.
- Increased flood extents and depths might be taken into account in the planning and implementation of new infrastructure by the local authorities, and an objective or action in this regard would be welcomed to avoid potentially flood prone areas or to ensure that new infrastructure is resilient to such risks.

Emergency Response Planning

- Increases in the frequency and/or severity of flood events may necessitate more frequent and/or resource-intensive emergency responses from the first responders, that local authorities might consider in the preparation of the strategies.

2. Irish Water



02 July 2019

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Bosca OP 6000
Baile Átha Cliath 1
Éire

Irish Water
PO Box 6000
Dublin 1
Ireland

T: +353 1 89 25000
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www.water.ie

Climate Change Adaptation Strategy: Kilkenny – July 2019

A Chara,

Irish Water welcomes the publication of Kilkenny County Council's Climate Change Adaptation Strategy in accordance with *The Climate Action and Low Carbon Development Act 2015* and the *National Adaption Framework 2018*.

Irish Water looks forward to collaborating with Kilkenny County Council in implementing the measures set out in the recently published Government Climate Action Plan and in the Draft Climate Change Sectoral Adaptation Plan: Water Quality and Water Services Infrastructure published in May by the DHPLG, in particular as regards using Integrated Catchment Management [ICM] to provide a cost-effective, sustainable means to reduce the sources of pollutants, and to slow, limit or restrict pathways of pollutants to waterbodies.

Yours sincerely

A handwritten signature in black ink, appearing to read 'G. Galvin', with a horizontal line extending from the end of the signature.

Gerry Galvin

Chief Technical Officer

3. Department of Agriculture, Food and the Marine

DAFM Submission on draft Kilkenny Adaptation Plan

Overall Comment

This is a very informative report but it does not inform the reader of the complex issues the county faces from an agricultural/forestry/seafood viewpoint. Farmers are the biggest landowners within the county and a lot of the adaptation/mitigation measures for climate change will be influenced/ managed by this group. Forestry planting/management, soil erosion, nutrient management, grazing management of sensitive soils, farming intensity within river catchments and many more issues will all influence adaptation/mitigation decisions at a county level. Protecting natural and key cultural assets, flooding, empowering communities, developing a more sustainable green economy and resource management will all be heavily influenced by the successful engagement of the main land owners in the county which are farmers. Therefore, there must be a sense of ownership/ inclusion from the agricultural sector in this plan which is not evident at present.

The report could also take note of the role of land use in the water system. For example, well planned and managed forests can help to improve water quality and to buffer and slow flows. Local authorities can benefit from forest planting supports for native woodland and amenity forests (see the Neighbourwood scheme in the DAFM Forestry Programme), which could provide localised climate benefits as well as supporting climate change mitigation.

In particular, the Department would like to highlight the climate change related impacts on the inland aquaculture industry which depends on the freshwater resource and the impact on seafood related infrastructure such as coastal harbours and piers.

Please see attached draft Agriculture, Forest and Seafood Climate Change Adaptation Plan which includes aspects of relevance to your draft plan.

General observations on issues that overlap with identified agricultural issues

The following impacts are recognised as being of cross-sectoral concern for both the Department of Agriculture, Food and the Marine and the Local Authority. The Department is cognisant of these issues and will be addressing each of them in our own draft Adaptation Plan (attached).

Wildfires

There will be an increased risk of uncontrolled fires that may occur as a result of hotter drier summers caused by climate change. Wildfires may cause damage to forest stands, farmland, raised bogs and peatlands. This will put increased pressure on fire services operated by local authorities and pose health and safety risks to people responding to fires and locals within the vicinity of a fire. There will also be an impact on air quality as a result which may affect the health of locals causing a higher rate of complaints. The work of the local authority related to prevention and combating air pollution may also be increased.

Slurry Storage and Land Spreading Issues

Issues with slurry storage and land spreading has been identified as an impact from the changing climate due to wetter winters affecting timing of slurry spreading. This may lead to nutrient loss and run off causing water quality issues for the local authority to monitor and manage. Increased ammonia emissions which will affect air pollution will be likely also due to spreading slurry when ammonia loss is at its highest.

Soil Quality

Soil quality/condition will be impacted by both wet and dry conditions due to machinery working or livestock out on land in wet conditions causing poaching. Soil sediment run off would impact water quality in river catchments.

Non-native Invasive Species

There may be an escalation in the spread of non-native invasive species which could lead loss of biodiversity on local authority management land. Non-native invasive species such as Japanese Knotweed have very large management and disposal costs if discovered on sites where development is planned.

Page 7: Emissions from changes in land use such as urbanization, deforestation, ~~reforestation~~ and desertification.

While deforestation is a significant source of emissions of greenhouse gases, reforestation is an important measure for increasing removals of GHGs.

Page 35: Stakeholders to work with and influence: this is a valuable opportunity to include the farming community within the plan. Farmers as the main landholders within the county have a huge potential to mitigate the impacts of climate change through the adaptation process. Issues like flood management, soil erosion (causing silt build up), nutrient management (influencing water quality) and crop management are all heavily influenced by what farmers do on their land and consequently will have an impact on areas that the Councils control.

Page 62-70: The agricultural sector and farmers in particular have a big role to play in this chapter of the plan so they should be mentioned somewhere in the actions. Even organising information evenings in rural areas to target farmers would help convey the message the Council's message and the role farmers can play.

4. An Taisce



An Taisce
The National Trust for Ireland

Kilkenny Association

Ruthstown,
Ballyfoyle,
Co. Kilkenny.
12/07/2019

Environmental Section, Kilkenny County Council.

Re: Climate Change Adaptation Strategy /draft.

Dear Sir / Madam,

An Taisce welcomes the Council's Climate Change Adaptation Strategy and its complementation by an annual action plan. We suggest that you consult with the public about the proposed actions each year.

We note that the strategy does not accept the need to get to net-zero carbon emissions by 2050 and we recommend that it does. It is essential that climate change adaptations are mainstreamed as soon as possible into all functions, operations and services of the Council and of the citizens in the County.

5.1 Energy and Buildings:

We recommend that the actions proposed in Table 5.1.2 include a change in approach to the planning process i.e. that the Planning Section of the Council proactively handle energy saving in buildings by providing detailed specification to applicants for achieving A standard energy-rated houses and that the need for applying for permission to install solar panels is removed.

5.3 Resource management

This section considers waste only, yet resource management is a much broader field. It is important to acknowledge that the earth has limited resources and therefore there is a need to limit population growth with its attendant rise in consumerism, intensive agricultural production systems and unsustainable economic growth. We must aim to use only natural materials that leave no waste residue.

Additional actions in Table 5.3.3 might include provision of street bins that contain a recycle section in addition to a general waste section (as is used in MacDonnagh Junction shopping centre). Tourists or citizens have no place to deposit recyclable materials such as paper on the streets. Also, the provision of drinking water fountains throughout the city would limit the use of plastic bottles.

5.4 Transport

A public bus service in the city would benefit from increased timetable advertisement and use of an easily recognizable livery. Provision of peripheral car parks, serviced by buses, would reduce congestion in the city centre contributed to by rural motorists.

5.5 Nature Based Solutions and Communities

It is important to acknowledge that most of the land in County Kilkenny is intensively farmed in a way that is harmful to wildlife and is not supportive of biodiversity. When possible the Council should seek to support organic and high nature value farming, and inform intensive farmers of the importance of providing wildlife refuges on their farms.

We welcome the Council's proposal to work with stakeholders and community groups to influence and support carbon reduction initiatives across the transport, commercial and residential sectors. Also the Council's commitment to educate citizens and bring about behavioural changes necessary to effect climate adaptation and mitigation is positive.

Yours faithfully,
Mary T. Brennan
Honorary Secretary, An Taisce, Kilkenny Association.

5. Kilkenny LEADER Partnership

Submission by Kilkenny LEADER Partnership to Kilkenny County Council – Climate Change Adaptation Strategy, based on *The Nore Vision* initiative.

Introduction

Kilkenny LEADER Partnership welcomes this opportunity to input into the consultation on the Draft Climate Change Adaptation Strategy for Kilkenny County (hereafter, 'DCCAS').

This submission will outline proposals and ideas generated by *The Nore Vision* consultations for the future of the Nore catchment conducted in Kilkenny (as well as Laoise, Northern and Southern Tipperary, and along the Carlow border (with Kilkenny and Laois) that the DCCAS could incorporate (please see appendix 1 for a map of the Nore catchment).

The Nore Vision consultation process recorded the shared aspirations of stakeholders for the future of the

River Nore and all of its tributaries, the land that drains into them, and the people who live and work there. It sets out the future that stakeholders wish to see for the Nore catchment within their lifetime and what they wish to leave as their legacy to the next generation. Consequently, the DCCAS assessment of future risks of water shortages and flooding are also of key concern to stakeholders of *The Nore Vision* initiative.

The consultation process of *The Nore Vision* identified consensus among a diverse range of stakeholders that the following were desirable priorities:

- better water quality
- the conservation of natural heritage and sustainable floodplains
- improved access to and amenity value of built and natural heritage
- greater public awareness and pride in local rivers, and
- authentic engagement with communities e.g. through participatory planning methodologies plus appropriately designed and administered support for community-based, volunteer-run projects.

These priorities influence the quality of life in County Kilkenny across age groups and social classes, improve resilience in an era of climate change, benefit tourism and the broader economy, including through visionary land-use planning and place-making, and promote civic responsibility.

***The Nore Vision* – a valuable input to Kilkenny's Climate Change Adaptation Strategy**

This submission outlines the background to *The Nore Vision* consultation process and explains why it is a valuable input to the DCCAS. While this submission pertains to the Nore catchment in Kilkenny, its proposals are likely to have relevance for the county's other river systems too.

Between 2017 and 2018, over 200 people participated in consultation workshops for *The Nore Vision* including residents, landowners, community groups, development organisations and government agencies (appendix 2). *The Nore Vision* consultations revealed that while people, groups, bodies and agencies have a range of perspectives and priorities when it comes to the River

Nore and its tributaries, there is a great deal of common ground when it comes to their 'Vision' for its future. While *The Nore Vision* is focused on the River Nore and its tributaries, the lessons from the initiative have applicability in the Barrow and Suir river catchments too.

***The Nore Vision* consultation outputs and their relevance to the DCCAS**

This submission outlines ideas recorded from *The Nore Vision* consultations that are relevant to the DCCAS. It has been compiled by Kilkenny LEADER Partnership, a constituent member of voluntary steering group of *The Nore Vision* (appendix 3), supported by the independent researcher facilitating *The Nore Vision*.

The outputs of *The Nore Vision* consultations are not directed at any one organisation, body or agency, nor are they solely relevant to any one community or economic sector. As is the case with the Nore catchment and its diverse resources, the end users of the outputs of *The Nore Vision* consultation process transcend social and political boundaries and have relevance to many stakeholders of different compositions. The Draft consultation phase of the CCAS offers a welcome opportunity to share relevant outputs of *The Nore Vision* consultation process with Kilkenny County Council.

The Nore Vision can be understood as the voice of the Nore river system, advocating on its behalf, to help secure the Nore commons for current and future generations.

Using Collaborative Partnerships to successfully engage across Diverse Stakeholders

The 2019 National Biodiversity Conference outlined how society and its economy is based on an environmental foundation and recognition of this is evident in the DCCAS. The Draft Regional Spatial and Economic Strategy for the Southern Region (RSES) recognises the "three indivisible dimensions of sustainable development (the economic, the social and the environmental)" and calls for more holistic ways of working that transcend traditional disciplinary boundaries and that resolve contradictory viewpoints e.g. through "collaborative partnerships" to help shift us "into a sustainable and resilient path".

An important and overarching priority distilled from *The Nore Vision* consultations was the call by diverse stakeholders ranging from communities and interest groups to staff in regulatory authorities and development organisations for "a joined-up, partnership approach characterised by co-operation and coordination of objectives and action by agencies, communities, enterprises, and individuals." While the Vision found much common ground among stakeholders, differing cultures, perspectives and disciplinary priorities posed significant challenges to identifying and agreeing actions to then pursue out of the consultations and to securing resource commitments from funding bodies that, on the face of it, would appear to have similar aims and overlapping geographies. Thus, a recommendation from *The Nore Vision* for Kilkenny County Council as it works to finalise the Climate Change Adaptation Strategy is to include an action on developing authentic community engagement through capacity raising among Council staff and among community champions across Kilkenny to learn together how best to work in partnership by sharing responsibilities and power with a view to co-creating solutions. As outlined by the RSES, it is important to "support the sustainable development of infrastructures to assist collaborative projects and sharing of assets and strengths". This includes the 'softer' infrastructures of collaborative partnerships.

Language is important to growing collaboration and all of us involved in producing publications, making presentations and exchanging views across organisations and disciplines are continuously learning how language considered acceptable to some stakeholders may create a barrier with others. The clear, jargon-free text of the DCCAS is to be commended in improving access to a wide readership. One way to improve demonstration of the intent to work in partnership with stakeholders (as necessitated by Climate Change) and the awareness that different stakeholders bring different knowledge to the table (some of it technical expertise from academic education, some of it local understanding of place-based land management practices and flooding characteristics) is to modify the section title repeated in a number of graphics in the DCCAS of 'Stakeholders to work with and influence'. One suggestion is to reword as 'Stakeholders to work with in partnership and co-create solutions'. Indeed, the weight of responsibility for climate change adaptation and mitigation should not be carried by the Local Authority primarily but shared equitably among its communities, farmers, businesses, industries, agencies, NGOs and so forth. Striking evidence provided in the DCCAS that 98% of CO₂ emissions in Kilkenny come from the private sector underscores the collective responsibility entailed in reducing the county's Greenhouse Gas Emissions (GHG). Equally, those stakeholders will need to be empowered and heard in order to put their shoulder to the wheel and work with the Local Authority to achieve its Climate Change Adaptation goals – in other words, ensuring a broadbased, inclusive approach to stakeholder involvement and creating a sense of collective responsibility to achieve multiple benefits. This approach is outlined in Mary Robinson's call for 'Climate Justice'¹ and summarised in Richard Branson's endorsement of it that 'the climate crisis ... [requires] far more than mitigation and adaptation, but a renewed sense of shared destiny'. Kilkenny County Council's unique reach into communities as highlighted in the DCCAS provides a pathway to this shared destiny. Achieving a sense of collective responsibility and sharing decisionmaking among less powerful stakeholders demands willpower from the more powerful, like Kilkenny County Council's management team; what Robinson calls 'moral leadership'. Robinson outlines that internationally from developing to developed countries, regions and cities, this moral leadership is coming from women who are leaders in their governments, as well as in communities.

Another key group of stakeholders is the youth of Kilkenny. The DCCAS refers to a range of ways in which Kilkenny County Council engages with young people through school and resource programmes, and they are referred to as stakeholders in the Draft. In terms of Climate Change, a key youth initiative is the School Strike for Climate Change.

Therefore, based on international experience, women and youth are expected to play a vital role in achieving the goals of Kilkenny's Climate Change Adaptation Strategy. As such, the Steering Group assembled by Kilkenny County Council to oversee its strategy will clearly benefit from grassroots input by Kilkenny's women and youth leaders drawn from urban and rural communities.

Using the Geography of the Three Sisters to Emphasise the Interconnectedness of Communities and to Create Key Allies for the County Council in an Era of Climate Change

The DCCAS refers to the Three Sisters of the Barrow, Nore and Suir river systems and the importance of their ecosystem services to the economy, society and environment of the county. Experience from *The Nore Vision* suggests that incorporating a river catchment-based perspective

¹ Robinson, M. (2018) *Climate Justice: Hope, Resilience and the Fight for a Sustainable Future*. London: Bloomsbury Publishing.

is very useful in helping stakeholders to recognise the inter-relationships between urban areas and rural hinterlands. Enabling settlements across Kilkenny to understand the strong relationship they have with upstream communities and rural areas through such a critical resource as drinking water and water supplies will help Kilkenny County Council with the need to raise public awareness of the importance of working collectively on climate change adaptation and mitigation measures. Such informed and engaged catchment communities will be key allies for Kilkenny County Council in times of drought and flooding as predicted in the DCCAS. During the community workshops of *The Nore Vision* consultations, people responded positively to this idea of connectedness through rivers and the need for joined-up thinking and action when it comes to water. The visibility of rivers makes this connectivity very real for people. And the importance of the connectivity is why in other jurisdictions internationally, there are financial instruments whereby larger downstream populations subsidise rural upstream communities to help them to develop and to manage their natural resources in ways that protect everyone's water supply or other human ecosystem services.

River catchments are functional areas like Rural Economic Development Zones (REDZs). Instead of the local economic activities and development processes represented through the REDZs, catchments are functional geographic areas for natural resource activities and environmental processes. And *The Nore Vision* has found that they are units that are readily understood by the public.

Securing Kilkenny's Key Indigenous Industries in an Era of Climate Change

The DCCAS refers to the agriculture and food sectors. It recognises that these are vulnerable in an era of climate change. Agriculture is Ireland's largest indigenous industry. This is underpinned by its favourable climate and natural resources. The Nore River and its tributaries drain a catchment of productive farmland in a dairying stronghold that extends across many river catchments throughout Kilkenny. The Nore's water, along with water from the county's other rivers, is the key ingredient to Irish milk. The quality of that ingredient combined with Ireland's commitment under Origin Green of sustainable food production in natural, scenic landscapes by family farms that are rich in cultural heritage too, creates a compelling story that helps Irish exports gain access to premium markets overseas. It is easy to see how strengthening the protection of water resources through a collaborative, catchment-based approach ensures that all stakeholders appreciate the benefits to be gained and contribute to the responsible management required. In addition to agri-food, other sectors in Kilkenny that stand to benefit from stronger catchment-based working include tourism, forestry, peatlands, design & craft, and heritage, arts & culture, the circular economy and the bio-economy. Indirect benefits occur because many other sectors, investors and highly mobile entrepreneurs are attracted by similar criteria for reasons that include quality of life, ethical values, and so forth.

Sustainable Transport, Green Infrastructure, Floodplain Management and achieving Multiple Benefits through Joined-up Thinking in an Era of Climate Change

The DCCAS recognises the importance of creating more opportunities in Kilkenny for walking and cycling. It also highlights the value of green infrastructure, with interconnectivity important not only for biodiversity but for people too. In *The Nore Vision* consultations, whether interested in walking, angling, kayaking or open-water swimming, people highlighted the challenges of access

overland to reach their local rivers and through the waterways themselves with barriers posed by built-up sediment or vegetation. Therefore, along with the necessary infrastructural development, river users called for joined-up thinking and action at a catchment scale to manage and maintain the river system in order to ensure access to it. Landowners, including farmers, called for this to be done in a coordinated and collaborative way. To help landowners along Kilkenny's river systems to provide access to river amenities in ways that deliver a range of benefits, the following idea was proposed in *The Nore Vision* – to codesign a locally-led integrated agri-environmental & amenity scheme through a European Innovation Partnership (EIP). The scheme would aim to create regional greenways and blueways at catchment level through the riparian zone of the main channels of rivers to achieve a number of complementary objectives such as integrated floodplain management, biodiversity conservation and amenity creation. The value of improving floodplain management and the restoration of flooding buffer zones is clearly recognised in the DCCAS. The following ideas come together in a way that signposts how to create multiple benefits from restored floodplain buffer zones in Kilkenny through a cross-county partnership with riparian landowners and other key stakeholders:

1. Setback farmland adjoining rivers to secure riverbanks from erosion
2. Encourage the creation of wildlife corridors with native vegetation and restore floodplain function adjacent to the entire waterway to help secure the future of NATURA 2000 sites such as the Three Sisters SAC and the Nore's SPA, to mitigate flooding events through ecological engineering and to improve water quality through reduced land run-off.
3. Incorporate a greenway through this wildlife corridor to give people access to the river and its environs, subject to robust environmental assessment. This reflects calls in *The Nore Vision* for river access to enable people and especially children **to develop a relationship with the river in order to engender an ethic of care and pride in this valuable resource**, so vital in an era of climate change.
4. Incorporate a blueway through the adjoining waterway, subject to robust environmental assessment, to provide a growing community of kayakers, anglers and open-water swimmers with safe access and appropriate infrastructure including slipways, angling pitches, etc.

Spin-offs could include the development of expertise in ecological engineering as Ireland is at an early stage of experimenting with this approach to flood mitigation, such as a TCD/OPW project outlined at the 2019 National Biodiversity Conference.

The Government recognises the long-term challenge that Climate Change poses and how its impacts on the environment will have knock-on impacts to society and the economy including through droughts and floods. Mitigation and adaptation includes creating more resilient catchments across Kilkenny e.g.

improving and restoring floodplain functioning through collaborative and integrated approaches across municipal districts, stakeholders and sectors, as well as across county bounds with neighbouring local authorities. Decarbonisation measures should favour agri-environmental schemes and the Rural Development Programme and support the development of 'Climate Resilient Farming' in Kilkenny that adopts a holistic approach through both the geography of river systems and the notion of multiple benefits via joined-up thinking and action referred to earlier in terms of riparian farming support schemes codesigned with farmers to generate public goods ranging from the protection of ecological services (water quality, flood mitigation) to the provision

of amenities (greenways, blueways). These have positive consequences for farmers too under Origin Green and for organic farmers, who are all being held to increasingly higher standards of environmental sustainability. For example, *The Nore Vision* heard from farmers about the negative impacts that flooding has on their enterprises as animal carcasses that wash up on their land have disease implications while the output of organic farmers is severely compromised when their land is inundated by contaminated floodwater. Farmers too see the value of adopting a catchment-based approach to planning and managing regional resources, where appropriate, and are already doing so in programmes with Teagasc and LAWPRO.

A Virtuous Race to the Top by Kilkenny Communities, underpinned by Moral Leadership from Kilkenny County Council

It is heartening to see that the three Local Authorities of the Southern Region in the Nore Catchment are all signatories to the Covenant of Mayors, highlighting their commitment to developing county-level Sustainable Energy (and Climate) Action Plans in the short-term. The catchment-based approach of *The Nore Vision* would be very helpful to such commitments made by Kilkenny County Council to achieve integrated planning for those services that are catchment dependent such as surface water supplies, water drainage and flood mitigation. *The Nore Vision* is a willing partner to protecting, conserving and enhancing the county's natural capital, as well as implementing natural flood risk management.

The Nore Vision is strongly aligned with the River Basin Management Plan and is actively pursuing funding opportunities through a partnership of four Local Development Companies (across three Local Action Groups), supported by LAWPRO and other collaborators, to carry out a number of relevant actions at catchment-level including Invasive Alien Species (IAS) Eradication, Citizen Science in Water Quality and Upland Community Development and Land Use Management. It is recognised that such actions will be enhanced if the initiative achieves a collaborative catchment-wide approach e.g. to achieve eradication of invasive species spread through rivers and to protect NATURA 2000 sites.

Focusing on 'Water Resources' and 'Water Quality', *The Nore Vision* consultations heard ambitions for a 'Blue Catchment' as participants articulated a vision for the Nore catchment to be the first Blue Catchment in Ireland and to achieve High Ecological Status. While the regulatory authorities work towards achieving the goal of at least Good Ecological Status in both inland and coastal waters by 2027, the idea is that the WFD goal of Green Status sets the floor while an engaged catchment community of landowners, residents, businesses and communities might be empowered and educated to strive for Blue Status, creating a virtuous 'race to the top' across communities, akin to the competitive success of Tidy Towns. The benefit of such an approach is to embed the concept of collective responsibility across all citizens in County Kilkenny when it comes to protecting water quality and ecological services in an era of Climate Change. Challenging participants to think about the type of legacy they wish to leave behind for the next generation was very helpful in *The Nore Vision* to developing a shared understanding of a desirable future. Creating the best legacy possible for the next generation is a vision that we can all agree on.

Conclusion

Kilkenny LEADER Partnership appreciates this opportunity to comment on Kilkenny County Council's Draft Climate Change Adaptation Strategy. The proposals and ideas generated from *The Nore*

Vision consultation process and being used by LEADER companies and LAGS across the Nore catchment contained in this submission intersect with objectives in the DCCAS. These synergies reflect not only the central role that the county's surface waters play in the quality of experiences of all those who live, work and visit it but also in the investment decisions of Local Government and business. Therefore, Kilkenny LEADER Partnership would welcome the incorporation of proposals and ideas contained in this submission into the final draft of the Kilkenny's Climate Change Adaptation Strategy.

For further information, please contact:

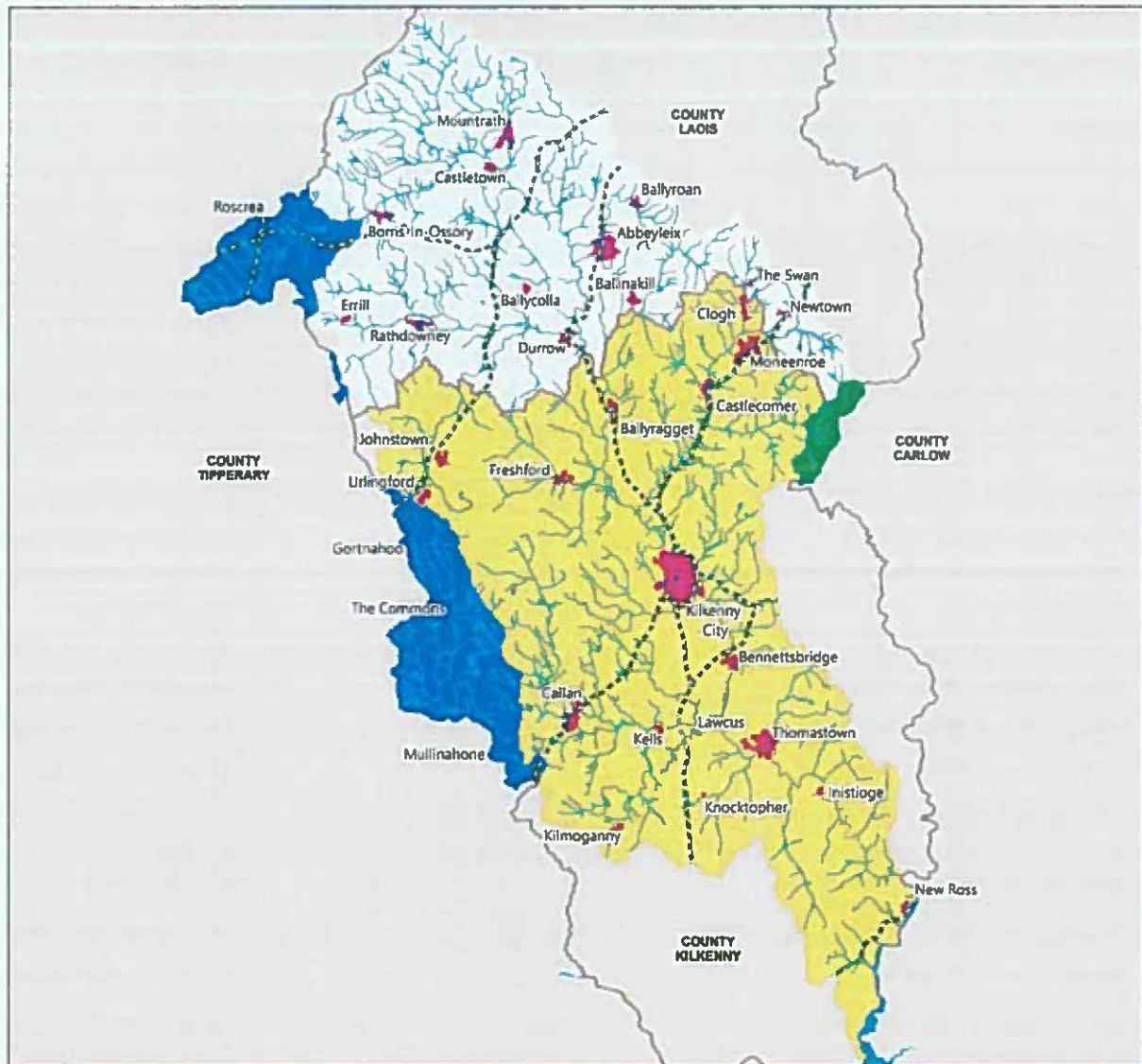
Mr. Declan Rice, KLP CEO at declan.rice@cklp.ie

Dr. Caroline Crowley TheNoreVision@gmail.com

Follow us on Facebook: *The Nore Vision*

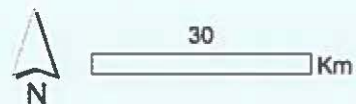
Appendix 1: The Nore catchment in Kilkenny (as well as Tipperary and Carlow in the Southern Region and Laois in the Eastern and Midland Region).

The Nore Catchment



Legend

- River
- County boundary
- National Road
- Settlement footprint
- Nore catchment in Kilkenny
- Nore catchment in Laois
- Nore catchment in Tipperary
- Nore catchment in Carlow



Digital boundaries: Ordnance Survey Ireland and Environmental Protection Agency, Government of Ireland

Appendix 2: Consultations for *The Nore Vision*

- (a) Contributors - the following agencies, authorities, organisations and groups with an interest in water quality, environmental resources, land use management, development, heritage and education participated in *The Nore Vision*.

Statutory Workshops	Resources & Interests Workshop	Community Workshops
<i>Bord na Móna</i>	<i>An Taisce</i>	<i>Abbeyleix Bog</i>
<i>Department of Agriculture, Food & Marine - Nitrates</i>	<i>BirdWatch Ireland - Kilkenny</i>	<i>Ballyragget Tidy Towns</i>
<i>Environmental Protection Agency – Water</i>	<i>Breaghagh Conservation Group</i>	<i>Bilboa Community Group</i>
<i>Fáilte Ireland</i>	<i>Glanbia Co-operative Society Ltd</i>	<i>BirdWatch Ireland - Kilkenny</i>
<i>Geological Survey of Ireland</i>	<i>Irish Creamery Milk Suppliers Association</i>	<i>BirdWatch Ireland - Laois</i>
<i>Inland Fisheries Ireland</i>	<i>Irish Farmers Association</i>	<i>Bournea Reaching Out (Heritage)</i>
<i>Irish Water</i>	<i>Irish Mining & Quarrying Society</i>	<i>Breaghagh Conservation Group</i>
<i>Kilkenny County Council – Environment</i>	<i>Irish National Flood Forum</i>	<i>Camphill Communities</i>
<i>Kilkenny County Council – Heritage</i>	<i>Kilkenny Aqua Canoe Club</i>	<i>Canoeing Ireland</i>
<i>Kilkenny County Council – Planning</i>	<i>National Federation of Group Water Schemes</i>	<i>Grange Development Group</i>
<i>Kilkenny LEADER Partnership</i>	<i>Nore Dragon Paddlers</i>	<i>Irish Countrywomen's Association</i>
<i>Laois County Council – Planning</i>	<i>Nore River Trust</i>	<i>Irish Mining & Quarrying Society</i>
<i>Laois County Council – Environment</i>	<i>Streamscapes</i>	<i>Irish National Flood Forum</i>
<i>Laois Partnership</i>	<i>Thomastown Community River Trust</i>	<i>Irish Wildlife Trust</i>
<i>Local Authorities Water & Communities Office</i>	<i>Thomastown Paddlers Canoe Club</i>	<i>Kilkenny Aqua Canoe Club</i>
<i>National Biodiversity Data Centre</i>	<i>Trail Kilkenny</i>	<i>Laois Kayak & Canoe Club</i>
<i>National Parks & Wildlife Service</i>		<i>Laois Sports Partnership</i>
<i>North Tipperary LEADER Partnership</i>		<i>Mountrath Development Association</i>
<i>Office of Public Works</i>		<i>National Federation of Group Water Schemes</i>
<i>South Tipperary Development Company</i>		<i>Nore River Trust</i>
<i>Teagasc - Agricultural Catchments Programme</i>		<i>Slieveardagh Rural Development</i>
<i>Teagasc - Farm Advisory Service</i>		<i>South Laois River Drainage Committee</i>
<i>The Heritage Council – Education</i>		<i>Streamwatchers</i>
<i>Tipperary County Council – Planning</i>		<i>Thomastown Community Network</i>
<i>Trinity College Dublin - Human Geography</i>		<i>Thomastown Community River Trust</i>
<i>Trinity College Dublin - Physical Geography</i>		<i>Tidy Towns</i>
		<i>Trail Kilkenny</i>
		<i>Trout Anglers Federation of Ireland</i>
		<i>Woodenbridge Paddlers Canoe Club</i>

- (b) Location of community workshops for *The Nore Vision* – community consultations were held in locations across the four counties of the Nore catchment from very rural upland areas to the heart of Kilkenny city. This ensured that *The Nore Vision* heard from communities in different parts of the catchment, with different needs and expectations. Kilkenny workshops were held in Ballyragget, Callan, Kilkenny city, Thomastown and Urlingford.



The Heritage Council offices, Kilkenny city

Grennan College, Thomastown, Kilkenny



3: Voluntary Steering Group of *The Nore Vision*

The Steering Group is comprised of members who have been participating in and helping to guide *The Nore Vision* from the outset and those who have joined as the process has evolved and expanded from Kilkenny to other counties. Representation at steering group meetings varies, with colleagues attending in lieu of listed members as schedules demand or as people move to new positions or agencies, therefore this is not an exhaustive list of the people who have overseen the initiative since 2017.

<i>Name</i>	<i>Representing</i>	<i>Interests / Position</i>
<i>Ms Anne Goodwin</i>	Laois Partnership	CEO
<i>Mr Alan Cullagh</i>	Inland Fisheries Ireland	Development Inspector
<i>Dr Amanda Greer</i>	Community	Conservation, invasive species removal expert
<i>Ms Ann Phelan</i>	Waters & Communities Office (LAWCO)	Community Water Officer, Southern Region
<i>Mr Basil Mannion</i>	LAWCO	Community Water Officer, Mid Region
<i>Mr David McInerney</i>	IFI	Southeastern River Basin District Director
<i>Ms Dearbhla Ledwidge</i>	Kilkenny County Council	Heritage Officer
<i>Mr Declan Rice</i>	Kilkenny LEADER Partnership	CEO
<i>Dr. Fran Igoe</i>	LAWCO	Southern Region Coordinator
<i>Mr Ger Lyster</i>	Community	F-T farmer along river, Trail Kilkenny participant
<i>Mr Gerry Gallagher</i>	Office of Public Works	Project Engineer
<i>Ms Helene O'Keeffe</i>	The Heritage Council	Head of Education
<i>Ms Isabel Cambie</i>	South Tipperary Development Company	CEO
<i>Mr Jimi Conroy</i>	National Parks & Wildlife Service	Conservation Ranger
<i>Mr Leslie Byrne</i>	Community	Land/business owner along river
<i>Ms Mairead Rohan</i>	CKLP	Community Development Officer
<i>Mr Mark Clancy</i>	Laois Partnership	Project Officer
<i>Mr Mark Rylands</i>	STDC	Project Officer
<i>Ms Mary Barry</i>	STDC	Project Officer
<i>Mr Michael Murray</i>	North Tipperary LEADER Partnership	CEO
<i>Mr Paddy Phelan</i>	Three Counties Energy Agency	Manager
<i>Mr Eamonn Morrissey</i>	Community	Recreation, Breaghagh Conservation Group (Tidy Towns)
<i>Mr Colin Doyle</i>	Kilkenny County Council	Scientist – Environment
<i>Ms Trisha Purcell</i>	Laois County Council	Environment
<i>Ms Paula O'Dwyer</i>	NTLP	Development Officer
	Tipperary County Council	Scientist - Environment

Steering group field trip to the Dinin Riparian Rehabilitation Project on the land of member Leslie Byrne at Lisnafunchin, Castlecomer.


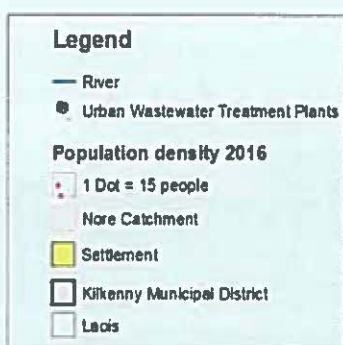
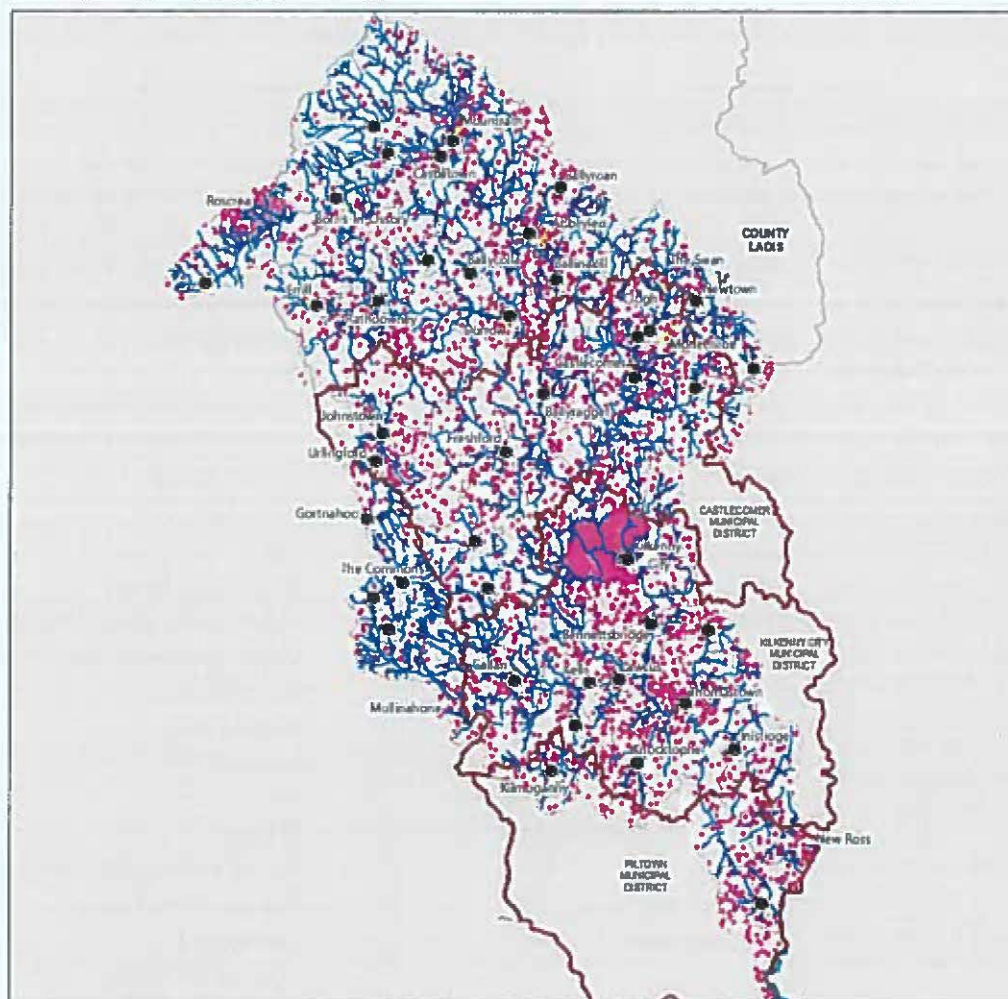


Steering group visit to Bennettsbridge with *The Flow Partnership*, a UK NGO involved in multi-stakeholder flood resilience projects.



Appendix 4:

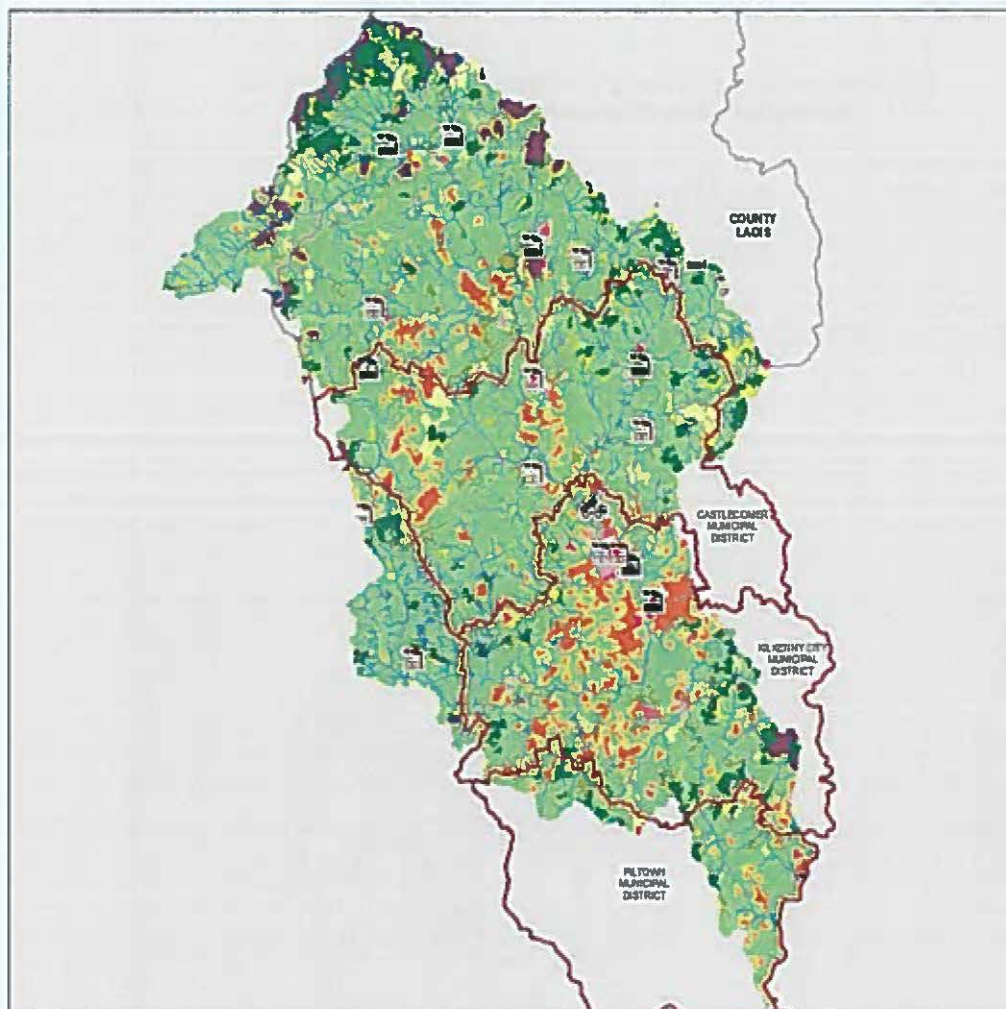
Where people live in the Nore Catchment, 2016.



Data: Census of Population, 2016
Digital boundaries: Ordnance Survey Ireland and
Environmental Protection Agency, Government of Ireland

Appendix 5:

Land Uses across the Nore Catchment.



Legend

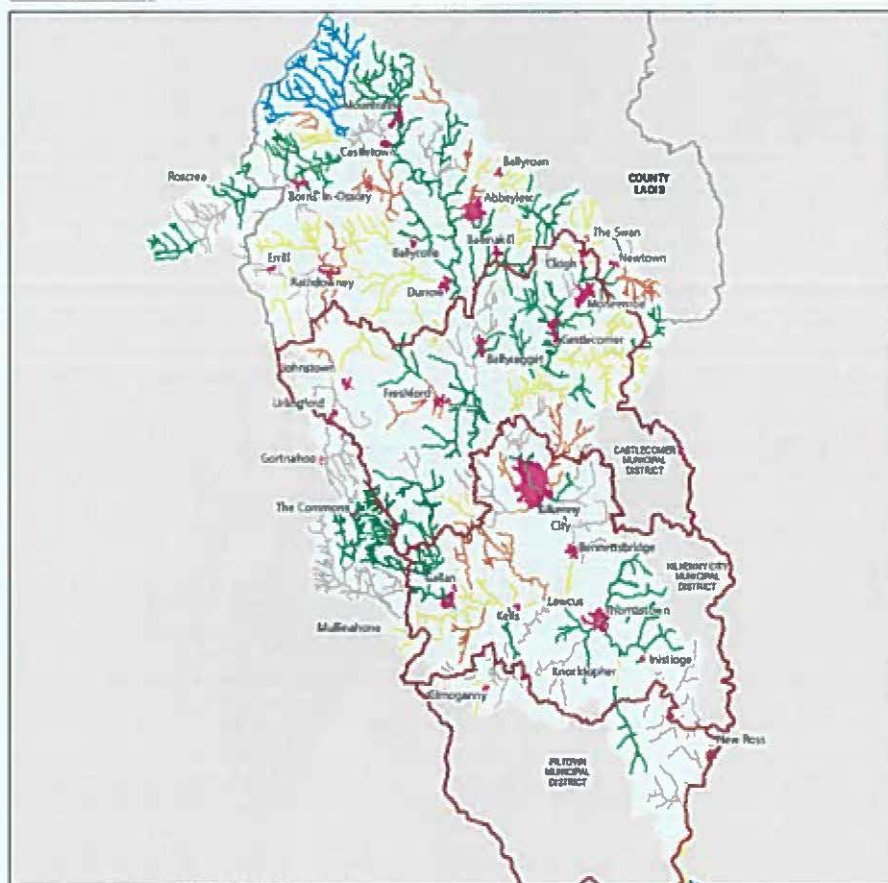
— River	Urban fabric
▭ Kilkenny Municipal District	Industry & mines
▭ Laois	Sport & leisure
🗑️ EPA Licensed Waste Facility	Cultivated land
🏭 EPA Licensed IPC Facility	Pasture
🏭 EPA Licensed Industry Facility	Natural farmland
	Broad-leaved forest
	Coniferous forest
	Bogs & heath
	Scrublands
	Wetlands



Data: CORINE 2012 and EPA 2015 to 2017.
Digital boundaries: Ordnance Survey Ireland
and Environmental Protection Agency,
Government of Ireland

Appendix 6: This map shows that the waters with the highest ecological status (blue and greentend to occur in upland areas (nature's 'water towers') or in headwaters upstream of more populated areas. However, this is not always the case. River water of moderate and poor ecological status is also found in less populated areas. Thus, water quality is impacted by all kinds of human activity and this highlights, once again, that water quality is everyone's responsibility.

**Environmental Quality along the River Nore and its Tributaries
(ecological status of surface waters), 2010 to 2015.**



Digital boundaries: Ordnance Survey Ireland and Environmental Protection Agency, Government of Ireland

6. Gas Networks Ireland

1 Introduction

Gas Networks Ireland (GNI) owns, operates, builds and maintains the gas network in Ireland and ensures the safe and reliable delivery of gas to its customers. The company is responsible for transporting natural gas through 14,172km of pipeline networks. The gas network supplies energy to 700,000 customers, including businesses, domestic users and power stations. GNI believes that gas and the gas network are integral to Ireland's energy system and future.

GNI welcomes the opportunity to respond to the Kilkenny County Council (the Council) Climate Change Adaptation Strategy 2019-2024, and would like to highlight some of the carbon reduction initiatives the company is involved in. These include the development of CNG² infrastructure for gas in transport and renewable gas³ injection infrastructure, both of which can assist Kilkenny County Council in achieving climate change objectives.

2 Climate Change Adaptation

GNI has considered the potential impact of climate change on the gas network and has worked with the Department of Communications, Climate Action & Environment to develop the 'Climate Change Adaptation Plan for the Electricity and Gas Network Sector'. Ireland's natural gas network consists of buried pipelines, which are not subject to the vulnerability of storms that can impact the delivery of oil or the transport of electricity through overhead wires. In addition, the routing of the gas network is designed to take account of flood plains, avoiding areas prone to flooding where possible.

Transportation of gas is unobtrusive and particular attention is taken to minimise the impact on local flora and fauna. GNI is committed to biodiversity & archaeology through the minimisation of the environmental impact of any construction and development activities. This involves a partnership approach with environmental and heritage groups on all construction projects, as well as employing engineers and environmental specialists to carry out environmental assessments at the planning and construction phases of developments. GNI returns all land to its original state following construction.

Moving energy through gas pipelines is considered the most efficient method of transporting energy and there is potential for this efficiency to be further exploited by connecting new customers to both the transmission and distribution networks. The existing transmission and distribution networks have spare capacity to accommodate new connections.

² Compressed Natural Gas (CNG) is a fuel used in the transport sector which reduces transport emissions.

³ <https://www.gasnetworks.ie/corporate/company/our-commitment/environment/renewable-gas/>

3 Renewable Gas

Renewable gas, produced through anaerobic digestion (AD), is a carbon neutral and sustainable source of fuel that can be injected into the gas network and used in the same way as natural gas. The development of renewable gas production in Kilkenny would help achieve some of the objectives listed in Section 5.1 "Energy & Buildings". These include:

- *"To support the increase of renewable energy produced in Council operations"; and*
- *"To progress Kilkenny County Council's own energy efficiency and renewable energy projects/ programmes and continue to communicate these experiences to inform best practice across all sectors"*

GNI therefore suggests the Council add an additional action to Section 5.1 under "Energy Efficiency and Renewables":

"Promote the development of anaerobic digestion plants and renewable gas injection infrastructure."

GNI is currently working to develop new renewable gas injection points on the gas network with a target of 20% renewable gas on the network by 2030. There are a number of significant benefits to using renewable gas:

- **Carbon neutral fuel source:** As stated above renewable gas is carbon neutral and also supports the circular economy.
- **Benefits to Agriculture:** Production of renewable gas in AD plants located in rural areas will provide additional revenue sources for these communities, from the sale of feedstocks for the AD plants, bio-fertiliser and renewable gas. The SEAI estimate that stimulating a renewable gas industry in Ireland could contribute directly to over 5000 jobs during plant construction and over 3000 jobs in plant operations⁴. With ongoing uncertainty regarding agricultural exports to the UK, post Brexit supplementary income streams for farming are important. Also agricultural sector emissions are reduced as the AD process captures greenhouse gases that would otherwise be released to the atmosphere.
- **Least cost method to decarbonise domestic heat:** Ervia (GNI's parent company) commissioned KPMG to develop and evaluate potential scenarios for the decarbonisation of the one million Irish residential homes currently connected to, or within close proximity to the existing gas network. The study⁵ concluded that renewable gas is the lowest cost option to decarbonise the domestic heat sector and avoids the need for deep retrofits to convert properties to a BER

⁴ SEAI, 2017 Assessment of Costs and Benefits of Biogas and Biomethane

⁵ KPMG, Decarbonising Domestic Heating in Ireland, June 2018

rating required for electric heating to work effectively. Another key objective outlined in Section 5.1 is:

"To explore improvements in energy efficiency and help identify value for money in energy spending across the Council".

Consideration should be given to renewable gas as it is the least cost way to decarbonise properties on or near the gas network.

- **Utilises existing infrastructure:** The gas network is a significant piece of energy infrastructure, with €2.5bn invested in the network to date. Renewable gas is identical in function to natural gas so the existing network can be used and gas customers do not need to change their boilers or gas powered appliances.
- **Indigenous energy source:** Renewable gas, produced through AD in Ireland, provides both security of supply and diversity of supply benefits. Having an indigenous source of energy reduces the likelihood of disruption to supply due to issues in other countries.
- **Carbon neutral power generation:** When renewable gas is used to generate electricity carbon neutral electricity is produced.

Current active projects in the renewable gas area include the GRAZE Gas⁶ project which aims to develop a central renewable gas injection point in the Mitchelstown area.

4 CNG

Heavy goods vehicles (HGVs) are responsible for a disproportionate amount of transport emissions. HGVs comprised 4% of registered vehicles nationally in 2017, however, SEAI estimates indicate that they produced 18% of total transport emissions. Section 5.4 of the consultation document references a sustainable transport system resulting in reduced emissions of CO₂ and other pollutants.

Decarbonisation of HGVs and buses is particularly challenging in this respect, as electricity is currently not a viable alternative to diesel. CNG has the potential to address these transport emissions with significantly reduced carbon emissions relative to diesel. When the production of renewable gas is increased on the gas network, and this gas is utilised by CNG vehicles as bio-CNG, carbon neutral transport can be achieved.

In addition to reduced carbon emissions, CNG also provides improved air quality with 99% less particulate matter, 70% less Nitrogen Oxide, and 80% less Sulphur Dioxide relative to diesel.

Section 5.4.1 details the Council's ambitions to develop a public city bus service. GNI suggests the Council consider CNG as fuelled buses.

⁶ Graze Gas: <https://www.gasnetworks.ie/corporate/news/active-news-articles/major-step-forward-to-bring-renewable-gas-on-to-gas-network/>

The rollout of a network of CNG refuelling facilities has commenced with 14 fast fill CNG stations being installed across the Core TEN-T road network via a project called the Causeway Study⁷ that is supported by the European Commission through the CEF Transport Fund⁸ and the Commission for Regulation of Utilities (CRU). In December 2018 a new public CNG station opened in Dublin Port. This project helps support the 'National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland (2017 to 2030)', which sets out a target network of 70 CNG refuelling stations by 2025⁹. This document also forecasts Alternative Fuelled Vehicles for 2025 and 2030 i.e. 4,050 CNG commercial vehicles and 1,000 CNG buses in Ireland by 2025, growing to 6,050 CNG commercial vehicles and 1,500 CNG buses by 2030.

Under the Causeway Study, GNI offered a publicly available fund to support the purchase of CNG vehicles by commercial operators. This fund was fully subscribed and is helping fleet operators to transition some of their fleet to CNG which provides fuel savings of up to 35% compared to diesel.

Similar to Section 5.4.7 Transport Actions, Action 10 for electric vehicles, an additional action should be added for CNG:

"Support the development of Compressed Natural Gas (CNG) infrastructure for both public and private sites."

5 Conclusion

GNI asks that the Council considers the role that renewable gas and CNG in transport can play in reducing carbon emissions in the region and their contribution to providing economic benefits to the local economy. County Council support for anaerobic digestion plants, CNG refuelling stations and renewable gas injection points would help establish these technologies in the region.

GNI would welcome the opportunity to discuss this response in more detail and can provide further information on any of the topics discussed, if require

⁷ <https://www.gasnetworks.ie/business/natural-gas-in-transport/the-causeway-project/>

⁸ CEF Transport Fund: <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport>

⁹ National Policy Framework: Alternative Fuels Infrastructure for Transport in Ireland (2017-2030)



Environmental Protection Agency

7. EPA

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Mr Paul Murphy
Environment Section
Kilkenny County Council
County Hall
John Street
Kilkenny
R95 A39T

28th May 2019

Our Ref: 190511.1

Re. SEA Screening Report for the Local Climate Change Adaptation Strategy for Kilkenny County Council

Dear Mr Murphy,

We acknowledge your notice, dated 8th May 2019, in relation to the Local Climate Change Adaptation Strategy for Kilkenny County Council ('the Strategy') and associated Draft Strategic Environmental Assessment (SEA) screening report.

The EPA is one of five statutory environmental authorities under the SEA Regulations. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

Proposed SEA Screening Determination

We note your initial conclusion regarding the need for SEA of the Strategy, as set out in the Draft SEA Screening Report provided, taking into account the criteria set out in Schedule 1 of SI 435 of 2004.

We provide some overall comments below and include additional specific comments in Appendix I of this submission, to consider in finalising the Strategy and your SEA screening determination.

Comments on the Strategy

Ireland's Environment

Our *Ireland's Environment; An Assessment 2016* (EPA, 2016) report identifies Climate Change as one of three key systemic issues that need to be tackled in Ireland. This report highlights the need for us to accelerate mitigation actions to reduce greenhouse gas emissions and to implement adaptation measures to increase our resilience to the adverse impacts of climate change.

Climate change poses significant challenges for Ireland and a comprehensive national response is required if the national transition objective of a low carbon, climate resilient economy and society is to be achieved. We acknowledge that the Strategy forms a key part of this response at local authority level. We acknowledge that the Strategy has been prepared in line with the *Local Authority Adaptation Strategy Development Guidelines* (DCCA, 2018). *Relationship with other key climate related plans/strategies*

The Strategy could include a schematic, clarifying the relationship between the Strategy and the Climate Act, National Adaptation Framework, adaptation guidelines etc.

We acknowledge that the Strategy commits to aligning with national commitments on climate change adaptation. Once the various sectoral adaptation strategies are published over the coming months, any relevant recommendations or actions should be incorporated into the Strategy (or subsequent reviews). Similarly, the Strategy should include a commitment to align with and incorporate any relevant recommendations that may arise within regional climate adaptation plans/programmes/strategies prepared over the lifetime of the Strategy.

In preparing and in implementing the Strategy, we recommend that opportunities should be sought to align with and collaborate with adjacent local authorities.

Explore opportunities to maximise co-benefits

In preparing and implementing the Strategy, you should ensure that any potential negative environmental impacts are minimised. You should also seek to maximise the many potential co-benefits of climate adaptation measures for human health, biodiversity, water quality, flood risk management, land use planning (including land use zoning), and other interrelated areas.

In considering and assessing the range of adaptation options available, we recommend that those measures with the potential to yield multiple environmental and societal benefits are prioritised.

Consideration of potential adverse cumulative or in-combination effects

We recommend that the Strategy includes a commitment that potential adverse cumulative / in-combination environmental effects are accounted for when considering, selecting and implementing specific adaptation measures. This is important to ensure that environmental sensitivities under the Habitats Directive and Water Framework Directive are protected.

Furthermore, in preparing and assessing the Strategy, it will be important to ensure that ways to recognise maladaptation early are identified, and strategies to counter this are put in place.

Climate Change Baseline

The Strategy should clearly reference the climate data and projections/scenarios used in developing the Strategy. It would be beneficial to develop a common set of climate projections that can be used for adaptation, infrastructure and investment planning to 2050 and beyond.

Flood Risk

The second cycle of OPW flood risk management plans is currently underway and will cover areas outside the scope of the first cycle, including more rural areas. These should help inform the Strategy and future reviews.

Sustainability Development Goals

Given the need to adapt to climate change across our society and economy, and become more energy and resource efficient, to support this transition to a low carbon society, a clear link could be made with the relevant UN Sustainable Development Goals (SDGs) should be included in the Strategy. This would help to show how Ireland is progressing these at all levels in the governance hierarchy, and, how progress in achieving the environmental related SDGs is being progressed at a local authority level.

Available Guidance & Resources

Our website contains SEA resources and guidance, including:

- SEA process guidance and checklists
- list of relevant spatial datasets
- topic specific SEA guidance

You can access these resources at: <http://www.epa.ie/pubs/advice/ea/>

Future Amendments to the Strategy

Where changes to the Strategy are made prior to finalisation, or where modifications to the Plan are proposed following its adoption, these should be screened for potential for likely significant effects in accordance with the criteria set out in Schedule 1 of the SEA Regulations (S.I. No. 435 of 2004).

Appropriate Assessment

You should ensure that the Strategy complies with the requirements of the Habitats Directive where relevant. Where Appropriate Assessment is required, the key findings and recommendations should be incorporated into the SEA and the Strategy.

Environmental Authorities

Under the SEA Regulations, you should also consult with:

- • The Minister for Housing, Planning and Local Government,
- • Minister for Agriculture, Food and the Marine, and the Minister for Communications, Climate Action and Environment, where it appears to the

- competent authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment,
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht.

SEA Screening Decision

As soon as practicable after making your determination as to whether SEA is required or not, you should make a copy of your decision, including as appropriate the reasons for not requiring an environmental assessment, available for public inspection in your offices and on your website.

You should also send a copy of your determination to the relevant environmental authorities consulted.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours sincerely,

Cian O'Mahony

SEA Section

Office of Evidence and Assessment 5

Appendix I: Specific Comments on the Climate Change Adaptation Strategy for Kilkenny County Council

The following comments should be considered prior to finalising the Strategy.

Specific Comments on the Strategy

In *Section 5 Adaptation Goals, Objectives & Actions*, consider an additional adaptation goal to recommend that sustainable policies and measures are devised and implemented to influence positive behavioural changes which support climate adaptation actions.

Consider also including an additional high-level goal reflecting the need for more effective implementation of relevant related regulations, policies, plans and strategies with a role in climate adaptation and environmental protection.

It is worth acknowledging that adaption actions may involve a mixture of grey, green and soft measures also.

Section 5.5.7 – Nature-Based & Communities Actions

Tree Management (Action No. 8), consider amending the text to refer to native tree planting, as part of a tree management plan for Kilkenny City.

Nature Conservation (Action No. 15), with regards the feasibility of composting on a large scale, there is merit in preparing a waste management plan for this proposal. The requirements of the SEA and Habitats Directives should be considered, where relevant and appropriate.

We also recommend an additional action be considered, to foster and implement meaningful approaches to protect natural and cultural assets in implementing the Strategy.

Where natural borders /buffers / blueways / greenways are concerned, we recommend that you consult with NPWS to ensure appropriate buffer zones are provided, maintained and protected to avoid potential impacts on designated habitats or protected species and habitats, and to protect and enhance wider biodiversity.

Green Infrastructure actions could refer to the role of green infrastructure as a mechanism for carbon offset. Additionally, referring to the wider environmental benefits of green infrastructure, such as microclimate benefits including providing shade to alleviate heat stress, supporting for urban biodiversity, water retention, and flood alleviation etc. would also be useful.

Under the 'Relevant legislation' subsection, consider also including a reference to the National Planning Framework (DHPLG), in terms of the climate and environmental commitments included. 6

Flood Resilience Actions

The outputs from the second cycle of CFRAMS will help inform the implementation of the Strategy. Flood Risk Management -Action 2, should also acknowledge the Flood Risk Management Guidelines (OPW, 2009) and the role of spatial planning in zoning and developing lands appropriate to their identified flood risk vulnerability.

In *Chapter 6 –Monitoring, Implementation & Evaluation*, in addition to the Eastern and Midland Climate Action Regional Office, the role of the Eastern and Midland Regional Assembly should also be referred to (in the context of ensuring that climate adaptation is integrated within local authority planning in the Eastern and Midland region).

We note the intention in section 6.1.2 to develop an Implementation Plan to deliver the actions set out in the Strategy. This implementation plan should consider the requirements of the SEA Directive and Habitats Directive, as relevant and where appropriate.

Under the References Section on page 79, the footnote should be amended to reflect the publication year of EPA Research Report 223 (2017).

8. Francis Micklem

Climate Change Adaptation Strategy

By Frances Micklem at Harmony Hall Think Tank, Kilkenny

1st July 2019

To understand everyone's perspective, vested interest and trade-offs necessary, I identified the roles and priorities for various groups. We are going to plunge a lot of people into uncertain self employment and there will be a lot of fear around money and accommodation and change in diet. People are going to be downshifting from their current blind survival mode, keeping their foot in the door of whatever job or benefits system they're on and house they're in to a whole new concerted action, with an unknown outcome. People are going to have to feel and more importantly *be* supported in taking the risk and making the changes, in order to meet the demands of a longer term view, including imminent climate change and the lifespan of their children.

There may have to be a basic living wage/benefit made available so that people can stay at home or local if transport is no longer regular for a commute and teach and learn how to grow food and take care of animals and other people and practical jobs in the house and community. I know there is a move to stop the use of oil central heating but there also has to be a stop to petrol, diesel, agri chemicals and detergent use and a big change in businesses, resource and land use and diet. Technology and machinery are going to have to be repurposed.

Luckily, in Kilkenny, there are a great many progressive and informed people, as we know from Future Proof Kilkenny, who were ahead of their time, three large organic growers including Highbank Orchards, the forefront ethics of the Cartoon Saloon to the massive resistance movements to protect Kilkenny's heritage and river and improve the lot of animals in pounds, in laboratories and in the wild. A founder of the Community Garden Network is based on the Kilkenny Carlow border too.

Announcing the end of fur farming in Ireland last week, Minister Creed said, 'there has been a shift in societal expectations'. This is exactly the motivation that will justify the Council making 'u turn' decisions like revoking licenses and permissions on potentially destructive projects. It is also a motivating force, hopefully sufficient to get consumers to make new decisions too. With sufficient education and participation, the county's changes will have to be considered by government and Europe. Everyone is agreed though, the pressure that works is from the bottom up, rather than the top down. So let's make it work for County Kilkenny and the people living here and not wait for someone to pass a bill, burdening people with carbon taxes – or whatever the things are that people fear. We can do better than that. We can benefit the people and make this county the most healthy, thriving and pleasant place to live, in interdependence rather than dependence on big companies that do not have the environment in mind.

To be successful and engage the belief and participation of the population, the Council will have to openly state that they plan to put ecology and sustainability at the beginning of every decision making process and at its end.

The Council

- The Redirection of Money
- To Set An Example
- To Mediate Between Various Sectors

The Individual

- To buy into the emergency climate action plan.
- To educate and be educated
- Incentives
- Pressure
- Collective expression of change wanted
- To see justice and fairness, big not small paying the price.
- To allay fears

Corporations

- Profits
- Audits
- Change
- Eviction –the bigger chains will have to go as one county probably won't be able to effect what they do as a world wide organization.
- Staff – to allay fears of redundancy

Self Employed/Small Businesses

- Incentives
- Acknowledgment of crucial local skill base
- Supported change
- Tax breaks
- To allay fears

Farmers

- Savings to be made
- Compensation
- Pressure – compulsory changes agreed
- Education
- Support in revisioning business model
- Guaranteed local sales even if poor initial harvests
- Repurposing land/machinery/stocks

New role for animals.

Heralded as stewards of the land: therefore holding the most important role of being able to plant trees, crops, foods, biodiversity, improve water quality, produce fuel rather than culprits of chemical spraying and responsible for carbon emissions.

To allay fears

100 Actionable Measures

Council

- 1) For actions to happen they have to be in line with the law. There is a law outlined called Ecocide and it is accepted in some countries already, where companies can be prosecuted for wilfully destroying or polluting areas. We can use some phrases of that law to take some polluters to task, if not to court.
- 2) Like a firm but friendly bouncer managing a door, revoke licenses and planning applications; audit and give destructive industries instructions and a fixed time to leave or change their practices, in line with climate action objectives.
- 3) Referendum on climate action and ask what people are prepared to do. This can happen AFTER a detox period, where chemicals and certain foods are banned and people have an idea of what life will be like without them and have been educated on the necessity for these changes and trust that the incentives and supports promised (by the authorities) have been followed through on.
- 4) Plastic. Ban one use plastics – things like pasta and coffee producers will be forced to make biodegradable packaging. Check that we only sell the sorts of plastics that we can recycle locally.
- 5) Demand that supermarkets eliminate plastic packaging.
Return to the pick and mix shelving and paper bags.
- 6) Public tender, administered by Repak perhaps or your waste management department, for innovative projects to recycle plastics, with a low toxicity process.
- 7) Public tender for innovative projects to improve drinking water and protect waterways. For example, affordable water testing kits to check pesticide/hormone/bacteria/fluoride/chlorine levels. Kits to de-salinize water and make it drinkable. Simple filters etc.
- 8) Public tender for innovative projects to produce a simple grey water system to divert roof water to flush toilets, water gardens and wash clothes.
- 9) Water Footprint and Quality Audit and accountability: Leave nothing to the longstanding organizations: Facilitate total transparency and review what is in mains water and water scheme

water, by requiring reports on animal waste run-off, pesticide and fertilizer run-off, industry spillage, acid rain and other pollutants, fluoride and chlorine.

- 10) Discuss, locally and nationally, the possibility of exporting water: Managing it nationally because rainfall is our best resource...rather than gas, oil (15% of the world's total water withdrawal is in the sourcing of fossil fuels and fracking), beef (over 15,000 litres per kg) dairy (over 1000 litres water per litre milk)inc. whey, casein, calves for veal (Cows responsible for a third of all Ireland's carbon emissions) and pigs (6000 litres per kg). No other country in Europe has enough fresh water. Ten years ago, they were laying pipes in Spain where rivers were, to carry the water to cities. The surrounding banks and valleys are now barren rather than lush. See the parallel with the piping of water from the Shannon to Dublin. Each roof can capture enough water to sustain a household and tanks can easily store it.
- 11) Sponsor inventories of what chemicals are on our fruit and vegetables. There is a grant (entries just closed on 28th June) by The Community Foundation For Ireland for biodiversity studies to be carried out by ecologists – testing soil, air, water etc. None of the grant was to be paid to staff members, you had to organize events to engage the community and only 'non profit' organizations were eligible. Therefore there was nothing to be gained, apart from an ecology report, if you entered. Even then the report to the foundation had to include measures to change and a commitment to increase biodiversity, which would be another cost to come down on the organizations head. All in all, there was no reward or even support involved and so I suspect that few organizations will have entered, just for the chance to contribute to the national biodiversity plan. They had a lot of money put aside for the fund. I wonder if some would be made available to a late entry by you at the Council to carry out an ecological study of the county's industries. Water and other waste from factories, nearby streams and rivers to the pharmaceutical companies, other manufacturers, power stations and masts in the county. Most processes release dioxins and suspected correlations with high cancer rates could be investigated and pressure applied to reduce emissions or cease production and clean up after themselves. Potentially, fines could then be redirected to smaller, ethical suppliers.
- 12) Sponsor inventories on what antibiotics are in meat – so many calves taken too young and sustained on antibiotics as they didn't even get the colostrum to build their immune systems before being taken from the cows.
- 13) Ask the people via the referendum if they are comfortable with live export.
- 14) Cows bred to produce 70 litres a day rather than 10 litres a day suffer during power cuts and droughts as they can get no relief.
- 15) Eliminate the contradictions: First, if you want biodiversity, you want the national emblem of the hare and not the licenses granted to trap it all year round for autumn coursing. It is protected and yet hunting is allowed still. Stop all spraying and hedge and verge cutting.

- 16) Balance the kick-back by subtly offering people who seek to book their coursing tickets, say, a €1 bet on the national lottery or something/anything less barbaric .
- 17) Public health. Pharmacies. There is nothing in Boots and most chemists that have a leaping rabbit symbol on it. Therefore there is nothing that has not been tested on animals. That is not what people in Ireland want any more. In addition, they do not want products made with beeswax and honey either. Most people understand now that the pollinators are close to extinction and that if they go, our crops and food go too.
- 18) Address the fear. Welcome efforts and suggestions. State that you support renewable energy and facilitate the start up of low impact, local, low budget projects.
- 19) Environmentally-led tax breaks. Eg, if you convert your car, house and business to run on plant-based fuel, it is completely recognized in your accounts and taken off tax payable.
- 20) Food security tax breaks. If you produce food or teach how to produce food, be it horticulturally or meal preparation or nutritionally, or processing or catering support, in introducing a new way of eating.
- 21) Food sovereignty tax breaks. If you produce meals from locally sourced ingredients.
- 22) Self sufficiency tax breaks. Low water use, Independence from the esb grid, grey water installation, shared transport scheme.
- 23) Correct second contradiction: food giants serve exclusively pesticide-ridden products, often with not one organic or ethically produced item in half an acre of shelves and they get tax breaks as food providers.
Now they are jumping on the interest in a vegan lifestyle and Coca Cola produce an almond milk now and Magnum a vegan magnum, subway a vegan sandwich and Bakewell a vegan sausage roll. These are mass produced and processed and certainly not organic, we mustn't let the big companies monopolize this shift of priorities. This is versus Organic producers who are required to label and get certification for every practice and stretch of land they use. They want to use un-dyed paper bags but must use copious plastic to identify their farm as the source. The latter should not be taxed at all but allowed to keep any euro profit they make as it is such hard work farming organically. Give incentives like 3 weeks holiday money (like the 180 income support) and co ordinate a bank of farm helpers so organic producers can get away.
- 24) Address geo-engineering. There is plenty of photographic evidence of chem' trailing over county Kilkenny and other counties. First look up the ingredients of chemicals intentionally sprayed by planes, in a supposed attempt to block sunlight. Look at records of the toxicity to air, soil and local residents too. Find out and stop it.

- 25) Address rural transport. One simple solution would be to open school buses to the public. As soon as a youth leaves school there is no way for them to get into the village/town/city for work. Many retired people could spend one day a week, doing their bank, post office and shopping etc and be sure of a lift home. Yes, there might need to be a garda-vetted supervisor on the bus because today's world is what it is but any parent, local worker or teacher would do. These buses are and bigger buses could be going down every road, morning and evening and that's what's needed. Ring a link is doing a bit but is not enough.
- 26) Transport. Electric car grants are only open to corporations and not even to medium sized businesses.
Make them affordable.
- 27) Photo voltaic solar panel grants do not cover costs, providers just added the grant amount. Make them affordable. This could be with simple tax incentive. Eg if a company has provided 300 homes with renewable energy, each within the figure of the individual grant paid then they don't pay tax on that income. Try and cut through the idea of fleecing everyone at every turn.
- 28) The whole of Parliament Street is empty. Owners were offered 40,000 euro LOAN to get them up to new fire safety standards. This was work that would cost them at least 75,000 to do. Any rent for the rest of time would be paid by HAP tenants straight to the Council, paying back that loan. Therefore the last tenant had to move out 18 months ago and now they are all derelict apart from maybe one lady, home owner above the hairdresser's, next to what was Hughes auctioneers.
- 29) Make all actions have a pay off for the people. The Council planning department could agree and renovate all the upstairs apartments and fit them with renewable energy source and provide central housing for lots of tenants. Don't make landlords pay for the work that will cost these older people (most home owners in the city are quite senior now) a whole new mortgage equivalent. You could insist that the rent they charge, after the work is completed, be capped at 450 euro a month, so working couples or even HAP recipients can benefit from the new accommodation created. 30) Iron out inner contradictions within the use of public money. Like the HAP begging landlords to keep tenants while tenants are being threatened with court if they do not evict tenants until work their department considers necessary is done.
- 31) Offer small incentives for house owners and tenants who maintain a pollinator-friendly garden or produce food. Even something small like 35 euro on July to those who have evidence of looking after their garden/land for air quality and biodiversity.
- 32) Tender for high level innovations like a safe, plastic recycling plant and products. Aim high, it can be administered by Repak but a plant and products and process to which we can direct all existing plastic on land, in circulation and in the Irish Sea: like building blocks or whatever creative inventors come up with.

33) Ban the production of plastic. Refuse planning permission for further PET plants (plastic bottling and packaging production). Make Ireland the first to decide that we will create no more and import no more plastic.

34) Monetize and encourage think tanks. For example, if you use any of these ideas, pay me a token sum for this report. Shift the policy from thinking of all ethical, useful, caring and community-focussed work and problem solving as being voluntary and make it a sustainable employment. Start think tanks on every topic. Every discussion hub and even conversation produces a solution or raises a problem. In one day alone, the problem of public transport (as experienced first hand at the cancellation of the crucial bus linking Kilkenny City to the IT Carlow) was given a solution by the founder of Community Gardens Ireland. Even neighbours who get on well don't succeed in sharing transport and many communities don't know each other any more but we should and could open school buses to the public. When innovations and workable or even brilliant ideas are recorded and shared with the Council, recognize their contribution to the emergency strategy.

35) Introduce cooking and nutrition to schools, based on what we will have. Foods grown in Ireland: Plant based protein sources (Nut, pulses, peas, oats, berries) and nondairy milks like organic oat milk, easily made here.

36) Present a vision everyone wants to buy into. Publicly counter the prejudice against health foods, vegans, vegetarians and organic growers. They will be the main bank of knowledge to effect social change as they have already had to work out how to live carefully and recognize their impact. Be the example of joined-up thinking and engage all groups with different motivations and priorities. For example, giving up meat and/or animal proteins. Like Leo Vradkar, who did it to reduce his carbon footprint: I went vegan 20 years ago, through a sense of equality with animals: Friends and family have made the change and reversed aggressive cancers: Others must, to lower their cholesterol or avoid reactions to a dairy intolerance: Awareness of 3rd world countries (Grain is produced that would feed 13 billion people but 1 billion remain starving as more than half is grown and watered and then fed to meat-eating societies, around the world): Those in insecure housing where there are no cooking facilities: The wave of concern about farm intensification, slaughter house practices and welfare breaches: The horse meat scandal and food safety noncompliance.

Connect the changes we need to make to all these: The environment, water use, waste, pollution, biodiversity, personal and family health, animal suffering and poverty and housing alleviation.

They can produce a synergy in motivation rather than conflicts of interest.

37) Phasing out does not work. For example, a top down ruling that farms must give caged hens 50cm squared more room were made 15 years ago and only 7 member countries achieved it, in that time. We can stop all the destructive, resource-heavy and polluting practices with immediate effect and then fairly share the stocks we have, over the next 10 christmasses or however it can be divided or is decided. Intensive farming (some cows producing 70 litres a day rather than 10 and suffering painfully in powercuts), (some hens producing 1 egg a day rather than one a month), slaughter houses only semi stunning (carbon-heavy gassing of) thousands of animals before killing them for food are cycles we can

stop but they won't stop themselves. If an industry is intrinsically dependent on exploiting animals it cannot be expected to develop practices that do not exploit the environment. The climate emergency strategy and resulting laws are going to have to define what is allowed and no longer allowed in the county.

In addition to stopping breeding, untreated waste from farmed animals could be redirected to Biogas energy generators. Farmers wouldn't have to feed so much as they're not fattening animals up, just maintenance feeds so that could be organic hay from set aside and not the chemically grown and gmo grains they've been depending on. Many farmers I have worked with are still paying off their feed bills from two winters ago and last winter. It is an industry that is unsupportable and one day, I suspect, will be understood as a false economy on many levels.

38) Close all science testing and pharmaceutical facilities. They use 10 times as much energy per square metre as an ordinary office block, they use chemicals at every stage of sanitation, production, testing and as ingredients. Air pollution includes poisons like dioxins and mercury that stay airborne for years. Water and waste pollution is heavily toxic and a danger to human health, both staff and public, let alone damage to biodiversity. Some estimates say that one quarter of all harmful emissions and pollution in agriculture come from the pet food industry. So feeding the animals used in testing and other industries, more common in Kilkenny, like puppy farming, can be addressed.

39) Things not to do. Don't turn to the big companies for solutions. Don't accept the first renewable energy company that suggests something. The upright windmills they're putting around are considered old technology. They are intolerable to live beside, disrupting the physiology of people, animals and wildlife and the digging of foundations deep enough to hold them. They are also ineffective in comparison to the horizontal dish technology. The key is to empower and inspire the people, with a subsidized switch to a small wind/water/solar/biogas (fuelled by household compost or manure) generator which are normal billing until the money is recouped, will provide households and estates with free electricity and off grid.

40) Stop the 'gas lighting', where authorities suggest that we should pay for water to appreciate it and pollution is from people not managing their rubbish properly, while allowing Nestle to operate and allowing Shell, Dell, Coca Cola etc and increasingly large farming operations to pollute the water and allow companies to drill, quarry and frack and contaminate all the aquifers and ground water. Engage each consumer on the benefits of changes, the connection between nature and our survival and the necessity to protect the environment. That protection should take the form of demonstrating for government and industry changes and household changes, not one or the other. Impress on all parties that it is not one individual's fault, it is a common situation that we all now find ourselves in and with collaboration, accountability and consistency people can make an equally positive impact. Acknowledge previous contradictions, like permission granted to sonic blast the whole ocean off the west coast to map it for fossil fuels but only allow visits to the Skelligs 3 months of the year to protect it as national heritage. And the contradiction in allowing Factory trawlers to illegally fish thousands of tonnes over their quota and then policing the shores to penalize local people who catch more than their quota. Or culling otters for causing a shortage of fish. In the King Scallop Festival of Valentia, they needed to import Donegal scallops. These contradictions are not obviously decisions made by the Kilkenny Council

but they will show that local politicians are able to understand the concept of inconsistency and the need for consistency as they move forward with this new strategy.

41) Engage the young and the old by respecting their superior knowledge. I have worked with hundreds of school groups in the last 3 months and every Junior and Senior Cert student and indeed all secondary school age pupils study ecology and know how to do a field study that surveys the plant and animal/insect species that are present in various habitats. Children could be asked to do a basic report of their own garden habitats and identify 3 shrubs or wild flowers or trees or vegetables that would grow there, considering light and shade, soil acidity and what is there already. The older generation know that pesticides are simply the rebranding of the chemicals used in the gas chambers by the Nazis, as pest control for farmers. People since the 1960s and before have been trying to save biodiversity and the environment. 'Just put away the DDP now. Give me spots on my apples but leave me the birds and the bees. Please!' Joni Mitchell, Big Yellow Taxi recorded in 1970. Change people's perception of good food. Organic fruit and vegetables are matt in colour, with no sheen of preserving chemical coating, they may have a few brown spots or have fended off a pest after one or two nibbles of a leaf but they have full nutrition, have not been synthetically ripened in a warehouse rather than from their tree. The antioxidants of fruit skins as they ripen are known to have incredible curative effects but now the majority are picked long before they're ripe to travel and prolong their shelf life.

42) Take out the clause in the tender process of organizations needing to have two equal-sized financial contracts already. It stops innovation, ethical practice, sustainable and unprecedented ideas being implemented. Only what has gone before can get in. Assign contracts on environmental merit and then support the projects with the necessary funds, financial advisors and administration.

43) The Outdoor Education and Adventure Centre governing body charges a membership fee based on income, rather than after costs. This means a not for profit organization, like the Discovery Park with a mission statement to provide local employment and deliver Ecology education and Geological, Historic tours cannot be a part of this umbrella organization. It is the same for Failte and other governing bodies, they have prohibitive fees and costs for association. Tourist accommodation, activities and education centres that provided zero impact eco services, could be given free membership, promotion and related supports. Currently, the most conscientious organizations are missing out on insurance concessions and accreditations.

44) HSE. Apart from serving food that is in line with the World Health Organization's recommendations, doctors and equipment should not be sponsored by pharmaceutical companies. Consultants' offices are adorned with accessories, stationary, tissues and equipment bearing the names of specific nerve painkillers and other products. If they are really prepared to be a part of the return to health for the individual and the work place and wider environment, they should make their medicines available to those that need it and use natural products, of which there are many that are anti-bacterial, anti fungal and anti viral. This will curb the chemical waste from sanitation.

45) Sponsor a researched article each week in The Farmers Journal on re-purposing, breakdown and sale of machinery, revisioning animal use. Organic growing trouble shooting. Resources and supports for processing and a list of resources, funding and supports available for the transition.

46) Emphasize that there are no competing goals but a synergy possible towards the common goal of protecting the environment for the next generation.

47) Respond to all queries not as bothersome details but with a big picture heroism, recognition and confidence that we can carry it off and Kilkenny lead the way.

Farms

48) Incentivize changes in farming. If farmers go 100% organic, stop using fertilizer, pesticide, herbicide, antibiotics and intensive accommodation for animals, they will not only command twice the price for their produce but also will be compensated for crop failures during the six year transition period – after which they get their organic certification.

49) Immediate cessation of spraying. Make it compulsory and employ other farmers as advisors, who have made the change to organic. And enlist ecologists, horticulturalists, crop and tree producers etc to fit new crops to suitable land. Savings of €40,000 have been recorded for farmers who stop using agrichemicals. 21) Fertilizer dries out the ground, leaves its natural fertility bereft with synthetic interventions. Educate the farmers about for example the Californian Gold Belt that that is now nearly a desert with over-worked ground, synthetic fertilizers and gmo crops that have put the local residents in a state of asthmatic fear.

And the Monsanto's Suicide Belt in India where more that 500 farmers have killed themselves. Ruined, having agreed to used Monsanto's Round Up Ready seeds and finding that the few seeds they could save from these modified seeds also belonged to Monsanto and they must pay again. Irish farmers know themselves how the fertilizers and sprays are stripping and degrading the soil. They will welcome a supported change.

50) Plant trees. For Ireland to meet its reduction in carbon emissions, it must plant 20,000 hectares of trees. We don't have that many hectares of farmland in the country. We have about 165 hectares of farmland in Kilkenny. Sponsor nut orchards of native hazel, cob and black walnut. Insist that all Coillte planting is of trees with edible fruit, with forest companion planting within, like raspberries and other leafy edible plants that grow well in shade. This will encourage and protect biodiversity and help feed people. Audit and ban their current spraying of forests and woodlands under their management. It is polluting waterways, making foraging toxic and contrary to the survival of biodiversity.

51) Find out what farms and what land are producing which crops. Ask those farmers what they would need to produce without chemicals. Don't make them compete with products from warmer climates. Total food sovereignty and independence can be prepared for and is then possible.

52) Ask livestock farmers what they would need by way of soil improvement and access to machinery to convert to arable crops. Make County Kilkenny a showcase of successful farming economy, without animals, vet bills, agri chemicals and costly transport, processing and packaging.

53) Invite tenders for the repurposing of machinery and sheds, here or abroad. Like growing mushrooms in sheds. Protected growing spaces are going to be our saving grace as the climate becomes more unpredictable. Renumerate and support a compulsory shift to stop breeding. Take meat and animal products out of the shops and put in the meat processing plants' freezer warehouses. This will avoid a mad rush to buy everything, where a lot would go to waste. Like when the first shoppers who made it to the supermarkets bought all the bread when there was snow and ice for a week.

54) Look at unleaded petrol and diesel and see if it's viable. Air pollution from diesel is linked to lung disease and heart attacks and yet 80% of the EPA fleet of vehicles, used to police air pollution, are run on diesel. However unleaded petrol is, it still impacts negatively at the extraction, refinement, transport and consumption phases. Electric cars and hybrids are a start but rely on big manufacturers and making them affordable. I applied for a grant from the SEAI and was told only corporations were eligible, not smaller companies or self employed individuals. Biodiesel works in diesel cars with no modification to the engine needed. Vegetable oil works in petrol cars, with a cheap adaptation kit (£250 sterling when I investigated and a local manufacturer could be diverted to making them at a similar price in euro and local garages trained to fit them. Biofuels are another crop that farmers could be supported in starting. Bioethanol is created by the sugar fermentation process and so that might regenerate Ireland's sugar beet industry again, making us again more independent of imported refined sugars and their carcinogenic burden.

55) Gear education away from old routes. Currently 500 new Fetac places are taken up in conventional pig farming each year, despite effluent, slurry, none of the 5 freedoms granted and tail biting and other behaviour and a necessary increase in the use of antibiotics to stem disease, getting less and less effective. This is compared to less than 50 studying Horticulture. It is just considered more profitable and so accreditation is needed to support useful businesses and land management.

56) European grants to farmers not to vets and fertilizer suppliers, the exact day that the grants arrive in their accounts.

57) Make all farms into power suppliers via Biogas (animal muck being cheaply and easily converted into heating gas for local areas.

People

58) Educate and excite people about the brown bin. Make it accountable and free.

59) Educate regarding the word 'Organic': It means A) Is natural and will biodegrade. Organic also means B) Food grown from seeds and soil without use of or residues from chemicals and no chemicals

used in production, cleaning, ripening or preservation to extend shelf life etc. A and B are two very different things. A is good enough for composting but B is what will halt the degradation of the environment.

60) Educate the public via programmes/broadcasts and videos on where plastic waste ends up, in forests and oceans and the micro plastics in our bodies and how it doesn't break down.

61) Public health. Vegetables. Potatoes that are not organic are sprayed up to 30 times with pesticides. That is a lot of residue. Make people aware how much chemical residue there is in and on all supermarket food. There is a legal maximum and everything and everyone has shot past it.

62) Encourage people to grow their own food and share the things that work well for them. Food sovereignty consists of buying food from local sources and at least from Ireland. We have a great opportunity as we still have a clement climate and still enough water.

63) Stipulate that people should save their 'grey water', redirecting their guttering down pipes to water butts and reserves. Their gutter water could happily flush toilets and water gardens all through the year.

64) Raise the appreciation for what we have. Not by charging carbon emissions or fuel consumption but by educating: Why do we love trees?! Why do we love worms?!

65) Educate people: A simple booklet on how pesticides incapacitate four of the digestive enzymes and how they are carcinogenic, with one in every two people in Ireland developing cancer.

66) Contradiction three: Explain how sugar accelerates cancers and how the many problems of conventional treatments are made worse by patients being given sweets to cheer them up after chemotherapy.

67) Promote the simple personal changes alongside a national shift to Irish food. Not simply the Green label though. At the moment, there is no qualitative aspect to buying green. Yes it was grown here but the food is grown using the same poisons.

68) Proper food for hospitals, schools and other residential settings. Organic food, no salt (dehydrating for kidney patients), sugar (addictive, feeds cancer cells and weight gain), meat (takes years for the body to break down and from animals raised in dubious welfare conditions, eggs that lead to an overload of protein, milk or extracted dairy proteins.

Organizations and individuals may say that they can't afford to buy organic ingredients but if they set the same budget as the previous year, caterers can work within in. It is not an argument that not enough chefs know how to produce a balanced healthy diet to avoid food intolerances; I know, for example 10 kilkenny-based chefs well able to feed a hospital, school, hotel or anywhere that needs a great amount of meals delivered.

- 69) Teach basic horticulture and herbal medicine for immune support and first aid, to relieve dependence on pharmaceuticals and the HSE. Call for the reversal of the extra 21% tax on natural food supplements in Health Stores.
- 70) Insist on chemical and phosphate-free detergents and all household products.
- 71) Waste management. Promote again the principles of reducing and separating household rubbish. Encourage people to take a pride in it. There is already a group called Zero Waste Kilkenny among which there are people who can advise and give talks etc.
- 72) Connect climate refugees with further demands on our water and resources. Help people spread their awareness to places already devastated by climate change – floods and droughts.
- 73) Help them connect water and wars – like in Syria and really understand that water is our gold dust resource to be protected at ground water, aquifer, coastal and deep sea level.
- 74) Teach about the algae in the ocean that provide 40% of our oxygen.
- 75) Teach about animal agriculture causing 40% of our carbon emissions.
- 76) Let local media explore the connections with meat and dairy and environmental issues and contradictions with future policies, like to increase the national herd. If people are informed, then Kilkenny's adaptation plans are more likely to be adopted by them and pressure put on other counties to follow suit.
- 77) Give a free medical card to all who adopt a vegan organic lifestyle
- 78) Free road tax to those who convert their cars to bio diesel or vegetable oil or create shared transport solutions.
- 79) Divert funding to provide converters to car owner. Make it an inviting prospect.
- 80) Provide solar/wind/water or biogas system to city and village housing estates so they generate their own electricity. Redirect their average ESB payments to the Council for 8 years and then the instalments and turbines will have paid for themselves and people will have renewable and free electricity from then on. Make the situation hopeful, doable and beneficial.
- 81) Instead of fines, carbon taxes and pressure, you decide the framework, provide what's needed and benefit the quality of life as well.

82) Insist on grey water systems being put on all buildings old and new builds, so that rain water is redirected for flushing toilets, washing up and growing vegetables.

83) Recondition people to trust our immune systems to recover if we don't expect products and environments to be sterilized.

Corporations, Supermarkets, Big Companies

84) Shops should provide a well-marked and promoted section: "Local" "Organic" or "Irish" and "Not sprayed" as a provisional way to promote farmer's transition to organic practice. (They can't get organic certification until their land is 6 years without chemical use)

85) Audit and internal monitoring of business' environmental impact.

86) Incentivize community gardens at industrial estates and companies. Sell it as staff well being and productivity increased by managing plants or a section of land or being resourceful or letting off steam digging, all get included in individual or company level recognition.

87) Recognize that pharmaceutical companies are not participating in their communities at all. They are charging with a massive profit margin on crucial medicines. People are holding charitable fund-raisers to get hold of what they need. With one in two Irish people expected to get cancer, fundraising amongst the community isn't going to be viable. Pharmaceutical companies have an overt mission statement to have every citizen on an average of 4 prescribed drugs, from cradle to grave. They are pushing a compulsory programme of vaccines, only the original 4 having been proven to be life-saving or safe. Look at the skill set of staff and offer coaching to re-locate them to environmentally-led organizations.

88) Ban and make law to force companies to produce compostable products. Planning permission to include comprehensive waste separation practice and systems, including recycling and compost system

89) Clear outline of Corporate Social Responsibility on company policies, to marry growth and sustainability goals.

90) Eliminate contradictions, no planning permission for growth in herd and dairy producing equipment when we need to reduce emissions. No licenses or registering businesses that require the exploitation of habitat or use of chemicals for cleaning etc. Require projects to meet different requirements meeting a societal need without damage to the environment, rather than demonstrate economic sustainability. We are going to have to learn as we go along how to make these new processes work.

- 91) Build the third sort of local economy. The current linear economy says that we buy something and when it breaks down we dispose of it and buy a new one. In a circular economy, companies ask us to rent and they will maintain and replace what we need when it breaks down, disposing responsibly of the old. But that isn't the case, it is just a means to tie consumers into a contract that is only so the company themselves have proof of an on-going income and can borrow money against it and grow their business. It works in other countries because retired people are looked after but here, the only thing they might have and need to have is to own the roof over their heads. We need to extricate ourselves from big companies. Train many more in maintenance and basic competencies, so that we don't remain a hopeless dependent population, in terms of fuel, food or household equipment. We also cannot stay a disposable society where everything is collectively dumped.
- 92) Fuel Industry. Oxfam and other charities deal with climate refugees, the millions of displaced people whose own country can no longer support life. Many will be heading for Ireland so it is in our interest to support broader concerns than Ireland's and Kilkenny's own. Oxfam supports the call to close all solid fuel power stations. In Castlecomer, Kilkenny, we have the history of all the previous extinctions and of the period before trees and a massive diversity of insects and creatures, colonized the land – all of which was desert beforehand. That was 400 million years ago. Castlecomer also has the history of the solid fuel industry. The coal mining history which was firsthand and in living memory a danger and toxic extraction process and inevitably came to an end, as the coal seams are themselves 320 million years old. People can be educated through this history as to the fact that coal not a renewable energy. Peat and turf too must be publicly understood too. In historical terms, it took 30 metres of peat to compress into 1 metre of coal. It's very old and finite. Also, people can be taught that it is very valuable where it is in the ground, as a carbon sump.
It is Ireland's version of the Amazon Rainforest.
- 93) Immediate cessation of chemical use in all industries
- 94) Do an inventory of what we have in the county and send EPA to test water output of companies, streams and rivers nearby. All industrial societies' governments know now and have recently re-confirmed their commitment to the climate summit agreement. However big businesses, of which we have many, still only will have a short term view. We have disastrous corporations in Ireland, like Nestle who will own our water if we're not careful. Monsanto/Bayer and other agrichemical companies have bases in Ireland and fossil fuel, gas and pharmaceutical companies: Dioxins as a side effect and byproduct of these, contaminate, as do other ingredients and substances used.
- 95) 'Big Pharma' and 'Dairy Giants' are in bed, in Ireland as tablet-form drugs are cased in casein - a dairy product that is carcinogenic in itself. High cancer rate around and environment destroyed.
- 96) Vegan food production uses 20% water footprint

- 97) Even processed convenience foods, on a large scale, use a fraction of resources electricity, water and land, if plant based.
- 98) Encourage family business/self employed as they have the long view.
- 99) Guarantee sale of produce
- 100) Make the changes and facilitate through making space by big business standing aside and or financing it through fines for destructive practices or requirement to sponsor clean ups of water sources.

9. Frances Micklem

Having read your strategy with great interest and admiration, can I ask that you extend the measures you plan to take to beyond public buildings and spaces in the county. It will be crucial to make an announcement that outlines the climate change response expected from businesses, communities, families and individuals. And that the adaptation plan will be implemented with immediate effect.

Let people know that the county plans to take an environmental audit of what is sold, produced and bought in the county. I would be willing to help compile a comprehensive questionnaire (to be analysed by survey monkey) to calculate what damaging processes and substances are routinely in the supply chain so that they can be addressed. The declaration of a climate crisis means that we all understand that there is not time to further research or debate the extent of how harmful one or other practice is. This is the opportunity we have to stop them and let the land, air and water quality recover and wildlife, soil and plants and our own health detox too.

How are we going to finance the transition to good practice and the education and building of a nutritional, organic, local food system and lifestyle? Some can be put straight onto the international shop chains. For example if you outlaw the sale of one-use plastics, the shops themselves will no longer be able to sell them, they will have to manage their stock accordingly. Secondly, there is national money that will have to be made available. 68 million euro has been paid for carbon emission credits and estimated further 60 million in fines for not meeting 2020 targets. That 60 million is going to have to be made available for the climate crisis, one way or the other, so let it be spent on actually reducing our carbon emissions, the clean up required and the system change to help biodiversity and society recover...instead of on fines.

It is possible as Bulgaria is going to be food independent by 2020, through investing in farmers – that's how we know what's possible.

The following are the immediate steps that will work:

- 1) Remove industrial chemicals from water and food - pesticides, hormones, fluoride, chlorine and microplastics from our water.
- 2) Ban the sale of non medical goods in pharmacies and supermarkets that use chemicals and animal testing.
- 3) Address rural transport and open up school buses to the public.
- 4) Guarantee accommodation stability, through HAP

Lighten the cost on landlords to do structural work and then cap rents.

- 5) Yes, the Council must stop spraying and join the Conscious Cup Campaign but so must every one else. Make it compulsory.

Engage the old: Reduce property tax in line with home owners' efforts to turn their gardens into habitats (uncultivated areas, no chemicals, flowering shrubs, bug hotels, stocked bird tables. Leave

room for the badgers, foxes, deer, rabbits, mink, squirrels and mice too etc), use of biodegradable products, their diet and switching to renewable energy.

Engage the young – To ecologically audit their homes – Every child from 5 onwards is taught how plants need pollination to fruit and reproduce and that trees create oxygen and soak up carbon. They know how to survey soil acidity and flora/fauna by 12 years old. As incentive, they can be offered a monthly pass to the swimming pool, or one-off ticket to the cinema or a field day with a local well-known coach etc and points for themselves and their school to be commended as a whole.

Engage the army at the barracks in organizing the clean up operation – as the military are the only organization organized enough to plan something county-wide. They are trained in tracing and addressing chemical and biological warfare attacks. These are transferable skills when you're mapping a trail of destruction like biodiversity loss and planning to put a stop to it.

6) Welcome all concerns and project suggestions. Really own this strategy and chance to make Kilkenny known as 'The County To Start The Clean Up'.

7) Educate via the Farmers Journal, regarding 'organic' as a) natural substances that will biodegrade and b) food grown without use of chemicals in growing, cleaning, ripening or preservation to extend shelf life etc.

8) Disallow the sale of one-use plastics in shops. Call for all eateries to join the Conscious Cup Campaign. Educate the public on plastic and food waste.

9) Support farmers with the sale of produce on condition they stop spraying. Insist that Woodies and Glanbia etc stop selling Round Up, Bug Kill and creosote etc and Lidl and Centra and co. make space to sell more unsprayed vegetables by taking out long life, chemically produced and processed foods – E numbers and unfamiliar ingredients are chemicals usually.

10) Incentivize community gardens/allotments at industrial estates and companies.

11) Call for the immediate cessation of chemical use in all industries. Promote the re-introduction of water and natural cleaning products.

12) Part finance the changes through the most environmentally unsound businesses in the county: Fines for destructive practices or requirements to sponsor clean ups of water sources or both.

These twelve actions can be implemented with immediate effect. They correlate to the points 7,17, 25, 30, 41, 47, 59, 60, 70, 86, 93 and 100 in the report I forwarded last week: 100 actionable measures, which you will find attached.

Frances Micklem

9. Noel Lawler Green Energy Solutions



Mr. Frank Stafford,
A/Senior Engineer,
Environment Section,
County Hall,
John Street,
Kilkenny.

04th July, 2019

Ref: Climate Change Adaptation Strategy Public Consultation

We have reviewed Kilkenny County Council draft climate change adoption strategy 2019–2024. As an Energy Services Company based in Kilkenny and working closely with Kilkenny County Council principally on construction projects we believe that this strategy is a very important document. In general its content is good and we would concur with it however there is now an urgency to 'act faster and go further' and whilst the document gives a lot of useful background information and some information on actions, it is light in terms of a strategic and cohesive plan with clearly defined actions, sequencing and costs.

In terms of enhancements/amendments we would offer the following advice:

1. This climate change adoption strategy now at consultation stage comes at a time where the National Climate Action Plan 2019 has been issued. It would be important therefore that this document is reviewed in the context of the National Climate Change plan and where appropriate amended accordingly. In simple terms it would be important that Kilkenny County Council policies and initiatives mirror those of the National Climate Change Plan.
2. We would also encourage Kilkenny County Council to set ambitious targets beyond mere government compliance levels. There is an opportunity through this plan of presenting the City as exemplar and adding eco-tourism to the already strong brand that exists. The awareness now around choosing services, products and destinations based on their sustainability exists now and will only increase in the coming years. As such there is a great opportunity to set Kilkenny apart from other offerings through the strategy outlined within this plan.
A parallel example of this would be London where the London Mayor through the London plan has set sustainability and environmental targets within the City of London at higher levels than national requirements. This sends out an important message to both citizens and visitors in terms of Kilkenny as a place to live and visit.

3. We also believe that referencing of global warming limitations of 1.5 and 2°C should be used in terms of setting the agenda for action and pace of change. There is considerable risk in looking back at improvements from historic baselines rather than looking forward and focusing on the true challenge of limiting Global warming within a very tight time frame. Measurement of progress should be based on science based targets and the action mantra has to be 'further faster' now and front ending activity rather than seeing 2024 as some form of global deadline.
4. The opportunities presented by these very necessary changes to traditional practices have the potential to create commercial opportunities which, if properly harnessed, will set Kilkenny apart as a commercial and educational centre of excellence for an emerging Green Economy. There are already many companies active in the region in this Green Economy and the Local Authority could act as a key facilitator in consolidating and nurturing this emerging industry. As consideration is given to potential redevelopment options within the Abbey Quarter we would recommend consideration to a specialised third level Institute focused on supporting these industries and developing opportunities nationally and globally be given, and an industry incubation hub and knowledge sharing location be promoted.
5. Given the urgency of this issue and its wide ranging implications on the citizens of Kilkenny and beyond, we believe this calls for a dedicated climate change department with an appointed Director of Climate Change and Adoption within the Council. The issues are potentially distributed across many departments now however to deliver results the proper focussed resourcing of Climate Change Mitigation is needed.
6. Climate change has the potential to act as a significant disrupter Kilkenny County Council. In terms of disruption to services provided by third parties we are seeing many organisations now carrying out combined resilience and sustainability audits throughout their supply chain. We would recommend now in terms of resilience of service and procreating within the supply chain procedures that encourage sustainable and environmentally friendly practices that this forms part of Kilkenny County Council Climate Action Plan.
7. There appears still to be a significant amount of energy upgrades to be completed within lighting and buildings. It would be important that newer, scalable and more effective methods of delivering energy-efficient upgrades be engaged. We have seen how the use of Energy Performance Contracts which at no cost to the Council ensure that inefficient assets are replaced and operated using energy savings as the payment mechanism. This model successfully piloted successfully on Public Lighting and also within The Watershed (Kilkenny) has delivered in a relatively short period of time impressive results. This model is being used by other Local Authorities and we would encourage increased awareness and uptake of this. We believe it could be an important mechanism in expediting progress.
8. In terms of New development in the County, currently planning submission requirements around sustainable development and energy efficiency is limited only to committing to Building Regulation compliance. We would encourage that this be broadened to require at planning stage detailed sustainability statements covering climate change resilience for developments and that formal sustainability rating requirements beyond minimal compliance be a requirement at planning application stage.

10. Ronan Beasley

Kilkenny County Council – Climate Adaptation

Public Consultation

Consultation: Kilkenny Climate Change Adaptation Strategy

My Focus: Section 5.5 Tree Management

Name: Rónán Beasley

In reviewing the Draft strategy, I have decided to focus on 5.5 Tree Management and its associated actions and timeframes outlined in section

5.5.7 .

To avoid the devastating effects of climate change and the associated biodiversity loss, we must protect and restore native ecosystems. As an adaptation strategy, tree planting brings multiple benefits including:

1. Soil protection and restoration, particularly in vulnerable riparian zones and important catchment areas.
2. Enhancing Biodiversity. Kilkenny County has significant potential for the development of ecological corridors. Many ecologically diverse areas have been fragmented and cut off throughout the county, weakening and reducing biodiversity. To build resilience in our native populations, a connected, diversity of species is required to build resilience.
3. Building ecological corridors enhances our county and connects us to nature.
4. Tree planting offers a tangible and quantifiable method of climate mitigation and adaptation.

While large woodland areas such as Woodstock and Kilkenny Castle Park in the County may be receiving attention, it is the continuous step by step destruction of hedgerows through poor management in the rural county and the planting of mono culture forestry that is steadily destroying the life support systems of native species.

It is the hidden niches throughout our county, the ancient hazel borders along the Muckalee river catchment which have been encroached by coniferous forestry. You can see how the native forest floor is teeming with native species of insect and plant life in the 10 meter border along the river. Past this border, you see the monoculture and vacant forest floor covered in pine needles. When these forests

are commercially felled, shouldn't the farmers be encouraged to replace the coniferous forestry with mixed native species, rewilding these important corridors and building resilience along our lesser known yet critically important river catchment areas.

Attention needs to be focussed on increasing tree cover within the county in a sustainable and beneficial way. Having a robust county strategy that pays attention to social and environmental issues could prevent less desirable initiatives that lack effectiveness in adapting to climate change and building resilience.

In terms of the Actions and Timeframes, there is a significant lack of commitment and funding. All plans associated with tree management are long and medium term with no funding in place apart from the pollinator plans.

Where is the Urgency?

How can the investigation of the DAFM neighbourhood planting scheme be a medium term (4 to 5 year) objective?

Can a practical way to increase native and diverse species be allowed to happen by rewilding specific zones or areas in Kilkenny owned by the Council. Can voluntary tree planting be encouraged in specified areas. These could be cost effective methods of creating a far more ecologically active area than an expensive green roof design and build for a Council property. A 3 acre disused plot that is rewilded has far greater impact and is far less expensive to develop.

It is the simplicity and quantifiable impacts that make tree planting strategies that much more effective for a climate change strategy. I urge the Council to rethink its approach to this topic and to please engage with independent ecologists and groups that can readily discuss simple strategies that can have a tangible impact.

Ronan Beasley

11. Lucy Glendinning

While I welcome this draft Climate Change Adaptation Strategy, the very title “Climate Change Adaptation Strategy” is problematic. In the face of a planetary ecological and climate crisis, the focus of all public bodies’ efforts should be on deep mitigation strategies, which at a minimum should be aligned with Ireland’s obligations under the Paris Agreement and the National Policy Position of 2014 of a reduction in GHGs of 80% by 2050 in the Buildings, Energy and Transport sectors. Adaptation measures should be designed against a backdrop of sustained commitment to GHG reductions in all of the local authority’s functional responsibilities.

Foreword

Regarding the foreword by Colette Byrne, I find it surprising to read that Ms Byrne feels Kilkenny County Council has demonstrated its desire to be a frontrunner in effecting change in terms of mitigation and adaptation over the past decade. I have lived in Kilkenny over a decade now and have witnessed very little positive action regarding mitigating climate change, reducing the demand for energy and transport and using compact, sustainable planning to increase residential densities in a manner conducive to active travel and public transport.

Over the past ten years I have taken part in a number of consultations and subsequent protests where the objections of the citizens were ignored in relation to issues around the natural and built environment. I have witnessed the collapse of our biodiversity locally, the polluting of our rivers through negligence by Irish Water and the local authority, the illegal and unnecessary cutting of hedgerow, the constant spraying of chemicals harmful to humans and wildlife, the destruction of trees, felling and unnecessary pruning of same, the loss of habitat for wildlife and many other examples of incremental but devastating ecosystem destruction. In the mean time, it is worrying to note the continued and planned growth of the dairy industry and the negative environmental issues that come with the industry, the ongoing problems with plastics, and a failure to respond to these environmental issues in a timely and effective manner (for example, through the provision of water filling stations or bins for food waste and other separated recyclables).

If Kilkenny County Council is serious about its claim to be a climate leader in mitigation and adaptation, the Council should immediately review in a comprehensive and participatory manner all of its plans, particularly its county development plan, and all policies and budgets, to ensure they are aligned with meeting Ireland’s statutory obligations under the 2015 Climate Action and Low Carbon Development Act.

I would like to submit the following comments and questions regarding the body of the report:

1.1 Where can details be found on the following?

33% improvement in the Councils’ energy efficiency by 2020

40% reduction in the Councils’ greenhouse gas emissions by 2030

1.2.5 While emergency response is important, there needs to be a greater emphasis on a proactive approach and examining measures to prevent the looming catastrophe to avoid further 'lock-in' of high carbon infrastructure and behavioural patterns.

1.2.6 "Local authorities have a significant role to play in actively implementing mitigation actions through measures, including the retrofitting of building stock, energy efficient projects, promoting sustainable energy communities and encouraging sustainable transport and land

Use," Much more detail is needed here on how Kilkenny County Council intends to respond by incentivising and encouraging retrofitting (through, for example, awareness campaigns and the establishment of a 'one stop shop' or similar arrangement – see the Tipperary Energy Agency).

1.2.9 "The 2013 EU Strategy on Adaptation to Climate Change encouraged all Member states to adopt comprehensive adaptation strategies." What strategies did Kilkenny adopt and what did the Council do as party to the Covenant of Mayors?

1.2.12 Why has it been determined that full SEA is not required?

2.1.2 "Both nationally and locally a rise in population is projected to increase the impacts of climate change, which will include additional pressure on drainage systems that are already working near capacity. The associated demand for more homes will lead to a decrease in pervious or green surfaces, exacerbating flooding due to enhanced run off." Is it wise, therefore to continue with the development of the Western Environs, the building of new roads and the extra schools on that side of Kilkenny city, increasing the existing traffic problems in and around the city? How many units in Kilkenny are currently empty that could be used as housing and what are the plans for these dwellings? How will this additional housing contribute in design terms to efficient natural drainage, and will the densities be high enough to ensure that travel demand can be met through active travel and public transport?

2.1.3 Rapid and sustained growth of the economy in terms of GDP and population has contributed to the current crisis.... Yet it is clear that growth cannot be successfully decoupled from emissions and Ireland's efforts in this regard to date have not reduced GHGs below their 1990 levels in absolute terms. You cannot have infinite growth on a finite planet. We need to shift away from this old and outdated way of thinking.

"The 2011 Census of Population identified that the majority of the county's population use the private car as a means of transport, with 64.5% of the total numbers travelling using the car either as a passenger or as a driver. Of the population aged 15 years and over at work in the 2011 census, travel times were reported as less than ¼ hours for approx. 31% of this category. A further 33% took between ¼ -½ hour to travel to work, with the remainder taking longer or not stated." Much of Kilkenny's traffic is local, and should be immediately targeted as a mitigation measure with plans to shift car travel to active travel and public transport, by restricting vehicular traffic and car parking in the city centre, and promoting and designing cycling and walking infrastructure (wider footpaths, narrower streets, dedicated cycle lanes and cycle parking). No one should be driving to work if it is only taking them 15 minutes unless

they have mobility issues of some sort. This area needs in depth analysis and attention. This is an area where mitigation and adaptation overlap: by designing our city to be resilient to economic and ecological shocks.

2.1.4 Kilkenny's "Green Infrastructure" oddly seems to include mainly roads, illustrated by a photograph of the Central Access Bridge which has cost upwards of €24,000,000 and is far from a "green structure". This bridge has likely increased travel demand and car dependency; it has added to community severance and created new bottlenecks and hazards for cyclists and pedestrians on Dean St. It has eroded the city's medieval streetscape (by cutting across it) and has not contributed to any sustainable development of the sites on either side of the bridge. As a piece of infrastructure, it should be regarded as a failure and a waste of precious resources. From a resilience point of view, the City cannot afford to invest its resources in grandiose projects that future generations will have to pay for out of their taxes and rates, while other much needed infrastructure (footpaths, cycleways and public transport) are neglected and underfunded.

3.1. Public Awareness. "79% said they regularly reduce waste and recycle." The public are aware of the massive changes that need to be made with regard to climate change, the problems with plastic waste, the problems with dumping, with pollution of water and land and the collapse of biodiversity. There is a total lack of detail as to how these issues are to be addressed in this section.

3.2 Adaptation Baseline. Yes we clearly see the events, the risks, the case studies but where are the recommended actions?

3.3 Mitigation Baseline "This highlights a gap to target of 6%, meaning that KCC must improve its energy performance by a further 6% between now and 2020 in order to meet its 33% energy reduction target." Really only 6%.... how were these figures reached? What does this actually mean? Surely the Council could be aiming much higher?

4.1 Climate Risk Identification. Again the risks are identified, rising sea levels, heat waves, flooding and so on but no mitigation measures detailed. We know all this. Now we need to know what measures the Council plans are to mitigate these risks.

5.1 Adaptation goals for Energy and Buildings. While it is good to see a number of key objectives outlined here, the comment that "KCC is also helping citizens to become more aware of their energy use by making Home Energy Saving Kits available in all of its public libraries" is a little like the government offering the iodine tablets some years ago in the event of a nuclear event! Practical help is required urgently and I would suggest government funding is imperative for this, using monies which could be diverted from the planned road building.

5.1.2 Flood Resilience. Good to see the emphasis on favouring nature-based solutions.

Infrastructural and engineered solutions to this should be viewed as the least favoured options.

5.2.1. Flood Relief Schemes. Are these nature-based solutions? Each project should be required to enhance local biodiversity, restore natural floodlands absorbtive capacity and any cost benefit analysis should be required to include the benefits (or costs) to nature and natural capital alongside property.

5.2.2. Building physical flood defences generally has detrimental effects on the natural environment, often moving the flooding problem elsewhere but also the aesthetic look of towns and cities, Kilkenny being a good example. The concrete walls at the Weir on the Bleach Rd. are particularly unattractive at what was a place of natural beauty. Another consequence of physical defences is the loss of habitat for wildlife, one of the effects of climate change we are trying to mitigate.

5.2.3. Disappointing to note that over 50% of the proposed actions are TBC, soft engineering in particular, which should be given top priority.

5.3.1. Resource Management. "KKcc is committed to reducing the use of disposable cups in its staff canteen". I would suggest we need to be well past this type of action and the sentence should actually read, "KKCC has banned all single use plastics and disposable ware from its canteen."

The Case Study is a positive; I would suggest this be shared with all Sports Clubs, Schools etc and a new green flag be awarded to those organisations attaining full green credentials. All events such as races need to go zero waste and a policy needs to be drawn up and signed up to whenever such an event is planned.

5.3.2 Reduction rather than recycling needs to be the new emphasis.

Regarding the excellent initiative shown for the Savour Kilkenny Event, why has this not been rolled out on a weekly basis at the Farmers Market with brown bins being provided for the large amounts of food waste, coffee granules, compostable packaging etc? Why are there still no water refill stations? Why are there no bins for separating at the very least plastic and cans from other waste? Why are the sellers still using single use plastic bags with no charge and non compostable containers for food and for drinks?

5.3.3 The disappointing figure of 50% TBC again.

5.4 While there have been some improvements to infrastructure for cycling within Kilkenny, the streets on the whole are geared towards the car and are therefore congested, polluted and dangerous for cyclists and pedestrians. Hence the numbers of cyclists, in a town which should see a high percentage of cycling, is low. Many of the cycle paths are badly maintained and very impractical or designed to a poor standard. The CAS costing upwards of €24,000,000 has done nothing to help cyclists. It has made the route from Vicar Street even more hazardous.

The one and only major change to the cycle infrastructure to traffic which would have benefitted Kilkenny cyclists massively in terms of ease and safety of travelling through the town on a bicycle was scrapped after one week only, which was extraordinary considering what level of planning and cost must have gone into the plan. Bike sales had doubled in the week so it would have been disappointing for the businesses involved.

It would be very interesting to see a comprehensive plan detailing the Council's commitments to reducing the impacts of the current modes of transport within Kilkenny. Contrary to what is stated in the report, I do not believe the roads are any safer for pedestrians or cyclists than they were a decade ago. If all members of the executive and the Council would like to take a cycle around the city, over the bridges, through Rose Inn Street, up Patrick Street and through Irishtown in particular, I am quite confident they would agree with this observation.

Where are the dedicated boxes for cyclists at all the traffic lights within the town?

I feel the aspirations within the document are far too vague eg: "to build resilience within KKCC to support a modal shift among Council staff." How, exactly and when? Is there a time frame and a goal?

Cycle parking spaces are lacking within the town, in particular at the end of the parade and especially at the train station which is an absolute disgrace.

The case study suggests there has been a reduction in car use.... How has this conclusion been reached? What are the comparative figures?

5.4.5 When?

5.4.6 When?

With regard to the Case Study, what conclusions were drawn from the Smart Study? Was a questionnaire circulated and collected from the children who participated and their parents once the exercise had been completed?

5.4.7 Investigate the feasibility – really?

5.5 Case Study. Helping the Pollinators. Unless the use of glyphosate (and not substituted with another poison) is ceased immediately, KKCC is not helping the pollinators. Glyphosate is a known carcinogen and this needs to be immediately recognised by the Council. When the Council publicly does this and announces cessation of use of this destruction product, members of the public and those within the farming community may wake up and follow suit.

Case Study – Inistioge. While I am sure that there are many aspects of this study that are really positive, the hanging of baskets of petunias and lobelias are minimal if any benefit at all to pollinators.

5.5.2 "Landscapes, rivers, woodlands, hedgerows..... vital for the health, wellbeing and quality of life of communities" – Development Plan 2014 – 2020. Why then, is the Council spraying glyphosate, supporting the early cutting of hedgerows, building more roads, supporting negative farming practices such as increasing dairy herd and all the associated consequences (including animal welfare issues) "pruning" and felling trees unnecessarily and constantly over-cutting the verges along paths and roads.

5.5.3 Green Infrastructure. I would suggest that economic benefits ie "growth" are one of the areas which has led to the crisis we are currently in and never benefits the many only the very few. Care and survival for the world we inhabit needs to be the priority now in order to cope with the current dire situation. Making profits needs to be put to one side during this process.

To be welcomed in the plan is the desire for more open spaces for meeting, walking, play and cycling. A skate park must be included here. In an open, accessible, attractive area, not hidden away where it will attract anti-social behaviour and become an unsafe and undesirable place for our young children and teenagers.

5.5.5 Great to see importance placed on tree management and the importance of trees in so many aspects of our lives. This needs urgently to be implemented especially where mature trees are concerned; I refer in particular to the unnecessary and damaging over pruning of trees such as those on the Parade and on the Comer Road and along roadsides and in towns and villages throughout the county.

5.5.6 Water Based solutions. Transparency of the state of all waterways is hugely important and has been lacking recently, the sewage spillage in the river Nore and the under reporting of same at the end of the summer of 2018, being an obvious example. Also a lot of damage was done to fresh water species in the river Nore during the construction of the CAS and I believe there are still issues relating to the restoration of environmental quality of the river that need to be addressed.

The damage done by Waterways Ireland by the destruction of trees and vegetation along the banks of the Nore earlier this year caused a huge public outcry and will have consequences for the future. This sort of vandalism must never happen again.

5.5.7 Nature based and Community Actions – 8 out of 12 TBC is again a very disappointing figure to be included in a report referring to this important issue.

Regarding support of litter awareness, a rethink on addressing this ongoing issue needs to be considered. Whether that is more cameras, naming and shaming, education, school involvement, community service for those offenders who are caught along with or instead of fines. Between the black plastic bags being chucked into the river Nore by a town resident, the weekly dumping of bags of

rubbish in the Newpark Fen and by the Orchard Pub and the unseen dumping, the problem of littering seems to be getting worse.

6.1 Who are the Management Team? How does this team nominate representatives to the group? I would suggest quarterly meetings are not often enough to gain any kind of momentum, given the enormity of the task at hand and the wide range of areas that need to be addressed.

6.1.1 Finally, to reiterate, priority needs to be Mitigation, not Adaptation. By accepting Adaptation as the priority, it is implied that Kilkenny County Council accepts and possibly encourages a lack of urgency to take the positive pro-active steps to engage the public and bring about real change for the present and hopefully for the future.

12. Sadhbh O'Neill

Submission on Climate Change Adaptation Strategy

Kilkenny County Council

12th July 2019

Thank you for the opportunity to comment on Kilkenny County Council's draft adaptation strategy.

The profound effects climate change is likely to have on Ireland and Kilkenny in a local context require new policies and new approaches by the local authority. Adaptation will require the authority to identify vulnerable sectors and regions, potential risks and impacts on biodiversity and local property. The Strategy must spell out clearly and in concrete, costed terms, the tools and strategies that the authority will deploy throughout its functional remit to cope with the anticipated changes brought about by climate change.

It is disappointing, given the serious safety and congestion problems faced by citizens of Kilkenny city, and the need for public investment in new housing to cater for our growing population, that there is no emphasis on the synergies between mitigation and adaptation: if we design our traffic systems and built environment in a sustainable way, we will not only not worsen climate change (mitigation) we will actively assist people in transitioning to more sustainable livelihoods and patterns of living. While the current legislative framework places more emphasis on the adaption work to be carried out by local authorities, it is likely, since the publication of the Joint Oireachtas Committee on Climate Change's report and the subsequent All of Government climate action plan, that new legislation to be published in 2020 will put an onus on all public bodies to adhere to the climate targets to be set down in law, and to align their policies and planning with the objectives of the Paris Agreement and the EU effort sharing regulation 2018. This anticipated strengthening of the role of public bodies in relation to climate mitigation should be planned for, and in a sense, this too is a form of adaptation. The enhanced role will require Kilkenny County Council

- **More expertise** in the disciplines of ecological biodiversity; energy engineering; lowcarbon design and planning; cycling network designs; communications and public awareness around home retrofitting and other low-carbon initiatives;
- **More awareness among elected representatives and employees** of their statutory responsibilities and understanding of climate science;
- **An immediate and urgent review of the county development plan** to ensure that future development does not generate further emissions and contributes to mitigation and adaptation;
- **A new travel strategy** which focuses on enhancing town centres, reducing car dependency and ensuring greater connectivity by public transport, cycling and walking for all;
- **Greater willingness to include public participation** and deliberative fora in all climate change mitigation and adaptation planning.

Due to time constraints I wish to refer you to an important publication funded by the EPA in 2013 which may be of some assistance in revising the draft Strategy prior to its adoption. The case studies of the Rivers Moy and Boyne should be of particular interest as there may be some replicable tools in relation to the river Nore in particular.

Climate Change Research Programme (CCRP) 2007-2013 Report Series No. 30: Coordination, Communication and Adaptation for Climate Change in Ireland: an Integrated Approach (COCOADAPT)
http://www.epa.ie/pubs/reports/research/climate/CCRP_30%20COCO%20Adapt.pdf

I look forward to further engagement with the local authority in relation to this strategy as it evolves.

Best wishes

Sadhbh O'Neill

13. Kilkenny for Climate Action

Kilkenny for Climate Action: A submission on the Kilkenny County Council Climate Change Adaptation Strategy 2019-2024

We are a group of individuals who have come together here in Kilkenny to work on strategies to actively address the global climate and biodiversity crisis.

Last month, Kilkenny County Council declared a climate emergency and in doing so joined the hundreds of progressive Councils throughout the world that are facing up to the greatest challenge of our time: to rapidly decarbonise society and limit global warming to 1.5 degrees or face tipping the earth into runaway climate change that could result in the collapse of our civilization by as early as 2050.

The challenge of transitioning to a fossil fuel free future is of a scale never before attempted in human history. The actions taken over the next decade will literally decide the fate of humanity on this planet and will require nothing less than system change – a complete reorganization of society; how we feed ourselves, heat and power our homes and work places, how we transport and employ ourselves.

Therein lies the positive. With creativity and civic engagement the transition to a fossil free future can be a positive force for the renewal of local circular economies, the restoration of healthy ecosystems and the flowering of vibrant engaged communities. With these aims in mind we have examined the Kilkenny County Council Climate Change Adaptation Strategy 2019-2024.

Adaptation or mitigation?

We appreciate the broad focus and the detailed analysis contained within the current draft of the Kilkenny County Council Climate Change Adaptation Strategy. We welcome the adaptation measures described in the document and the recognition of the role Kilkenny County Council must play in increasing citizen participation in climate solutions. The draft recognises the recommendations made by the 2017 Citizens' Assembly. We are reassured by this acknowledgement and the subsequent analysis of the serious risks we face.

However, whilst we share the strategy's aim of creating a climate resilient community, we believe the proposed strategy does not go far enough or move quickly enough where mitigation strategies are concerned. We question the emphasis on adaptation over mitigation and would like to see the document include more mitigation measures and the timeframe for introduction of those measures reflect the urgent nature of the climate and biodiversity crisis we are in.

Biodiversity in crisis

Science tells us that the biodiversity crisis is such that we have no time to waste and that nature itself can provide solutions to global warming. The All Ireland Pollinator Plan is a very helpful and positive guidebook. However, such is the critical nature of the biodiversity crisis at this point that we find some particular measures and practices to be at odds with the aims of preserving and improving biodiversity. We call on KCC to lead the way in immediately stopping the spraying of herbicides, pesticides and fungicides on public lands, to encourage landowners to follow this example, and to provide leadership in advising farmers of the positives of preserving and improving biodiversity. Furthermore, we urge KCC to

immediately apply the recommendations of the Pollinator Plan to restrict mowing in public spaces allowing wildflowers to proliferate spontaneously and to provide habitat for insects and other wildlife, to ensure hedge cutting and hedgerow management is in keeping with the aim of prioritising wildlife, and to identify all possible lands and spaces of all sizes, urban, suburban and rural, for rewilding and reforestation with mixed native trees and plants.

Whilst we commend the nature-based and community actions described in the proposed Climate Strategy, we find that these are not ambitious enough to address the current climate and biodiversity crisis. Considering the length of the suggested timeframes and that the budgets for many of these projects have yet to be confirmed, we are concerned that nature based solutions are not yet a priority for KCC.

Food

A key component of a resilient society is food security. We would like to see KCC's Climate Strategy include an emphasis on supporting food security measures within our community. Measures we suggest include supporting diverse pollinators, addressing soil quality and the ability of the soil to retain water during times of water scarcity, supporting community composting facilities, encouraging people to eat locally produced food, encouraging people to grow their own food, encouraging secondary production within the county from locally produced ingredients, supporting organic growing and farming, exploring the benefits of silvopasturing, encouraging regenerative farming methods, identifying and supporting ways of improving access to local markets for growers and farmers.

Agriculture – moving from climate problem to climate solution

Agriculture, and more specifically livestock production, is responsible for the majority of methane emissions in Ireland. To have a real chance at a sustainable future, we consider it important to specifically address the detrimental impact many current agricultural practices continue to have on our environment. Biodiversity, soil quality, water quality, flood defences and food security have all been made more vulnerable by the chemical and mechanical inputs of farming practices. The care of much of the landmass of our county lies in the hands of the farming community. We urge KCC to include the agricultural community as one of the 'main stakeholders to work with and influence' within the climate strategy and to place support for the farming community, as it makes the transition to sustainable and regenerative farming practices and land care, at the core of its climate strategy.

Transport

Public transport in County Kilkenny lacks effectiveness as a realistic sole means of transport, and in particular has had only limited effectiveness as a means of timely travel to and from school and work. We are encouraged by the planned new local bus service in Kilkenny city and look forward to the improvements it should bring to the city environment. We note that investigations into the feasibility of evolving public bus facilities in rural areas have been planned by KCC. We would like to see significant and effective public transport connections made between urban and rural areas in Kilkenny, as well as beyond the county, to make car free living a realistic and attractive possibility in the very near future.

KCC's objective of setting Kilkenny as an exemplar urban cycling area is one we fully support. We look forward to the results of KCC's planned investigation into the provision of a city bike scheme. We welcome the planned review of the existing cycle lane and cycle track provision in the city. We urge KCC to prioritise such efforts to support a rapid communitywide shift away from car travel and, again, to extend these efforts to rural Kilkenny.

The impact that school car travel has on traffic volumes and subsequent pollution in the city and county is evident. Measures to eliminate car travel to school could include prioritising pedestrian and bicycle travel, improving traffic calming measures, segregating cycle lanes, establishing walking and cycling buses, and creating adequate and secure bicycle parking. In tandem, we urge the establishment of more widespread public school bus services. These actions could lead to significant reductions in carbon emissions from cars and significant improvements in air quality and public health.

Additionally, we call for a renewed focus on the pedestrianisation of Kilkenny city centre, which would serve as a key statement of both intent and example in the essential move to decarbonise.

Housing

We welcome the focus on regeneration of urban centres and are heartened to learn about the studies that are currently being undertaken in Kilkenny to explore the reuse of vacant buildings for housing and sustainable communities. Additionally, we welcome the planned policy changes in planning and use of sustainable building materials. Projects such as the proposed feasibility study on district heating systems for urban regeneration projects could radically change how we heat our homes. In light of the climate crisis declaration, we urge KCC to prioritise these projects and to shorten their expected timeframes.

Conclusion

This submission is a brief and limited response to the current draft of the Kilkenny County Council Climate Change Adaptation Strategy 2019-2024. Kilkenny for Climate Action urges Kilkenny County Council to hold the critical state of the climate and biodiversity crisis at the centre of all decision making and at every level of its action, to lead by example as we address this crisis together, and to ensure that citizen participation remains a key component of any strategy for the future. To reiterate, the actions taken over the next decade will literally decide the fate of humanity on this planet. Let's work together to make sure we have the best chance at creating a positive future.