Ballitore Biodiversity Action Plan 2021-25

















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Plan produced by:



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Acknowledgements & Contact Details

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The project represented a collaboration between the Rural Development Team in County Kildare LEADER Partnership CLG and the Heritage Section in Kildare County Council. The project launched in February 2020 and culminated in February 2021.

County Kildare LEADER Partnership CLG and Kildare County Council would like to thank members of the community for their involvement and engagement with the process to develop this action plan. We would also like to thank Working Together for Ballitore Biodiversity for nominating Ballitore to take part in the project when expressions of interest were initially sought and for their role in encouraging others in the community to get involved.

Finally, we would like to thank Brian Gaynor from Green Pine Consultants and consultant ecologist and botanist, Dr. Fiona MacGowan, for their commitment and dedication to the project and for sharing their expertise generously with the community. They liaised directly with communities, delivered a dedicated programme of training sessions, produced a very helpful series of newsletters, and brought this plan together.

We hope that the Biodiversity Action Plan will be beneficial in guiding local actions to promote and protect biodiversity in the coming years.

Getting Involved:

If you wish to get involved with any of the actions outlined in this Plan, please contact either:

Working Together for Ballitore Biodiversity: <u>https://www.facebook.com/biodiversityballitore/</u>

or

Kildare County Council Heritage Officer:

Phone: 045 980791 Fax: 045 980835 Email: heritageofficer@kildarecoco.ie Website: <u>http://www.kildare.ie/countycouncil/Heritage/index.html</u>

If you would like to apply for LEADER funding towards implementing some actions in the Plan, please email the LEADER team on <u>info@countykildarelp.ie</u> or call us on 045 895450. You can also check out our website: https://www.countykildarelp.ie/

Photographs: Photos used in this Plan are courtesy of Suzanne Behan, Dr Fiona MacGowan & Brian Gaynor.

Section 1:

Introduction

Ballitore is a quaker village located in South Kildare, it has a very unique history. Its Irish name Baile Atha an Tuir means 'village in the bog'. In 1685 two Quakers, came to Ballitore, they planted trees and reclaimed and cultivated the land. It is said to be the only planned Quaker settlement in Europe.

Due to its vast Quaker history, it has been the subject of study for many architectural students, historians and also the birthplace of Lydia Shackleton the famous botanical artist. The oldest reference to snowdrops in Ireland relates to Ballitore and is recorded in THE ANNALS OF BALLITORE in 1766.

In 1726 Abraham Shackelton opened a boarding school, which became world famous, attracting students from all over the world. Edmund Burke, Nappertandy and Cardinal Paul Cullen were among the students that attended.

Today Ballitore is a village with a close community and its surrounded by the River Greese which is a hugely important habitat for wildlife and biodiversity. Ballitore is steeped in Quaker history but today there is no evidence or links to the snowdrops of the past, this is something we hope to restore for the future.

This Biodiversity Action Plan aims to guide the local community and stakeholders in their efforts to protect and restore some of this natural heritage and maximise the benefits that nature can provide for the people of Ballitore. The Plan is not intended to be a static document but rather to be regularly reviewed and updated over its life.

A healthy natural world is crucial to our way of life; it provides us with clean air & water, food, shelter, and much more!

Process to Produce This Plan

At the end of 2019, Working Together for Ballitore Biodiversity submitted an Expression of Interest to be part of an upcoming initiative entitled the *Kildare Community Biodiversity Project*. The project was an initiative between County Kildare LEADER Partnership and the Heritage Officer in Kildare County Council. It was funded by the LEADER programme for 2014-2020. Green Pine Consultants and Dr. Fiona MacGowan were contracted to deliver the project. The team brought together qualifications in biology, ecology, botany, and landscape architecture, as well as skills in working with community groups.



The project kicked off in February 2020 with a launch night in Newbridge Town Hall. There were over 75 people in attendance from the ten communities that were selected to take part. The project involved recce visits to assess biodiversity in each community, as well as a series of free public training workshops, and the development of local Biodiversity Action Plans. Due to Covid 19 restrictions, the training sessions took place in September and October via Zoom Meetings. These were open to all stakeholders and members of the public with an interest in making their locality a better place for people and nature. During this process, the views of all participants were sought during the workshops and through a questionnaire. Several community groups attended the training sessions and their input was invaluable to the production of this Plan.

What is Biodiversity?

Biodiversity refers to the variety and variability of all living things including plants, animals, microbes, fungi and people. It also includes the places where plants and animals live (known as habitats), the interactions among living things (the web of life) and their environment (ecology).

Biodiversity is all around us, everywhere and in our everyday life. It forms complex systems that sustain life on Earth. Each part of the system is important no matter how small or trivial it may seem to us. Think of it as a puzzle; having a biodiverse system allows us to see the full puzzle but when we start to remove different pieces, or species, the picture loses important parts.

We rely completely on biodiversity to provide us with the basic elements we need such as clean air and water, food, fuel, building products and medicines. We also rely on it for the many free 'services' such as nutrient recycling, pollination and water filtration etc. It is therefore vital that we make space for nature in our towns, villages and countryside for us to continue living full and healthy lives.

"Biodiversity underpins the functioning of the ecosystems on which we depend for food and fresh water, health and recreation, and protection from natural disasters. Its loss also affects us culturally and spiritually. This may be more difficult to quantify, but is nonetheless integral to our wellbeing"

Ban Ki-moon, Secretary General of the United Nations

Section 2: Biodiversity in Our Area

Ballitore is a historical village in south Co. Kildare with strong historical links to the Quakers, the Religious Society of Friends. The village is nestled within rich farmland with large arable fields and hedgerows. Built on the River Greese, a tributary of the Barrow which it joins just north of Carlow town. The hulking Wicklow Mountains are over to the east and the Central Plain away to the north and west. Please note that further details on your local conservation site details can be found at: www.npws.ie/protected-sites/

Ballitore has several local sites of natural heritage interest including wildflower meadows full of Yellow Rattle and the River Greese.

Main Biodiversity Sites

There are numerous places of important biodiversity value in Ballitore. The following are some of the main ones in and around the town.

Site of Biodiversity Interest

River Greese (or River Griese): This small, fast-flowing river that rises near Dunlavin on the Kildare and Wicklow county boundary, is a tributary of the River Barrow. It flows through the village between The Tanyard and Glanbia. Fish recorded in the river include brown trout, stone loach, Atlantic salmon, European eel, three-spined stickleback and European river lamprey.



The Tanyard: The Tanyard consists of some old tannery buildings built around 1800 by Thomas Bewley. It is located in the heart of the village on the edge of the River Greese. It has recently been renovated as a new community centre with ample grounds that offer the opportunity to create a variety of habitat for both local residents and wildlife.

Quaker Graveyard: Located at the south-eastern side of the village, this burial ground is in use for over 300 years. The burial ground at Ballitore has long been managed in such a way that it has developed into a biodiversity-rich wildflower meadow. This spot is a gem of south Kildare with lots of lessons to pass on in how best to manage a grassy area in order to maximise its biodiversity.



River Barrow (SAC 002162): Ballitore lies in the greater Barrow river basin because the River Greese is a tributary of the Barrow. Beautifully described by the celebrated poet and one-time Co. Kildare resident Gerard Manley Hopkins as the 'burling Barrow brown'. It is the second longest river in Ireland with its journey starting in the Slieve Bloom mountains of neighbouring Co. Laois. It is a large, broad river through Co. Kildare but remarkably still is only at the early parts of its route all the way to the sea at Hook Head. The full length of the River Barrow together with its sister river the Nore form a Special

Area of Conservation (SAC 002162) due to the fact that this mighty river is home to a long list of species and habitats that are of international biodiversity value.

Ballycore Rath (pNHA 001751): located just 2.5km southeast of Ballitore, this is a small area of rich biodiversity with calcareous grassland, scrub and marsh along the banks of the Bolhoge River.

Slaney River Valley (SAC 000781): The Slaney river flows 8km to the southeast of Ballitore. Most of the River's length is designated of international biodiversity value for its habitats and species.

Recent Progress

A lot of work has been carried out in recent years already to enhance the village's biodiversity. The following are some examples of these:

- In the past two years we have completed two talks on wildlife and hedgerows. These were accessible for the whole community to attend.
- In December 2020, Millview residents begun planting new hedgerows, small pockets of trees and fruit trees throughout the estate. In total, the group took in over 1,000 native trees and hedging! This was one of the actions identified as part of the biodiversity training carried out during 2020. The project was delivered with the support of the charity 'Trees on the Land'.
- Documentation through photography of many of the wildlife species in the local area.
- In autumn 2020, members of the local community took part in the Kildare Community Biodiversity Project. It involved three biodiversity training sessions (all online) and led to the production of this Action Plan.



Millview residents planted over 1,000 native trees, mostly hedging, during the 2020-21 tree planting season

Wildlife of Kildare



Section 3: A

Callto



This is a shared plan of action for the village to build on the recent progress made to improve areas for biodiversity and to start developing other opportunities to maximise the village's full biodiversity potential. In doing so this will hopefully engage new people and groups in managing their local green space with biodiversity in mind. The plan has four main objectives, each with several targets and actions:

- 1. Objective 1: Making Ballitore wildlife friendly
- 2. **Objective 2:** Raising awareness of local wildlife and how to protect it.
- 3. **Objective 3:** Collecting evidence to track change and measure success.
- 4. **Objective 4:** Build local capacity to manage and record biodiversity.

Did you know: Irish pollinators are estimated to contribute €59 million annually to the Irish economy!

Objective 1: Making Ballitore biodiversity friendly

All types of land can be used to increase the levels of biodiversity in the village including built features and green spaces. Each landowner whether public or private can also play their part in enhancing their lands for biodiversity.

Target	t 1.1 Make the village's public spaces more biodiversit	y friendly	
No.	Action	Who	When
1.1.1	Engage with Transport Infrastructure Ireland about managing the roundabouts at Junction 3 of the M9 as wildflower meadows by cutting and lifting them each year in August / early September. Plan this at the beginning of the year. Augment with native wildflower seed, particularly Yellow Rattle after it is cut and lifted.	Suzanne to send initial contact letter to engage with KCC regarding this action	By Feb 2021
1.1.2	Engage with Kildare County Council about planting more native trees on the R747 grass verges.	Suzanne to send initial contact letter to engage with KCC regarding this action	By Feb 2021
1.1.3	 Explore the opportunity to maximise the visual & biodiversity value on the approach roads into the village by: A. Managing the grass verges coming into the village on both sides as a wildflower meadow. This can be either a hay meadow or a bulb and shortcut wildflower meadow. B. Planting a native hedgerow along the field boundary on the Thoran Rd. 	All members of Ballitore Bio Project Tidy Towns Committee CE scheme workers currently manage some of these area's – engage with them	Some planting to be done in Jan/Feb 2021 Planting of hedgerow on Thoran road completed in 2021
1.1.4	Infill planting into the shrub / flower beds using pollinator friendly plants in the Library and Quaker Museum garden. Explore the opportunity to create a wildlife pond in this space.	All members of Ballitore Bio Project & Local volunteers	2022
1.1.5	 Explore the opportunity to enhance the grounds of The Tanyard for community use and biodiversity: A. Create a natural playground beside the car park area. B. Create a community orchard / garden using local heritage varieties of fruit and nut trees and bushes in the central garden space. C. Manage the grassland beside the River Greese as a wildflower hay meadow. Some ground work may be necessary to allow for annual management. Install paths around the field allowing access for all to the space. D. Use the facility to raise awareness and run events about biodiversity (see actions under Objective 2 Target 2.1). 	Tanyard Committee Kildare KCC All members of Ballitore Bio Project	Starting in 2021 the Tanyard committee will work on actions laid out in the BAP ongoing 2021 – 2025 With reviews in line with BAP reviews
1.1.6	Increase species diversity in the patch of rank grass in the seating area at the River Greese. Plant native wildflowers such as Knapweed, Devil's-bit Scabious, Cow Parsley, etc. Ensure all plants are Irish provenance. Encourage dog owners to pick up after themselves in this area.	All members of Ballitore Bio Project; Tidy Towns; BCQVC	2021-2022

No.	Action	Who	When
1.1.7	 Explore the opportunity to re-landscape the Old Schoolhouse Square to maximise its value for community use, heritage interpretation and biodiversity which could include some of the following design ideas: Creating a central pollinator friendly flower bed. This could be 	КСС	
	 For certaining a central pointation mentally nower bear must could be further enhanced by installing a sculpture depicting an aspect of local heritage. Re-paving the rest of the area with an Irish Blue Limestone paving flag. Installing new seating (covered) in keeping with the space. 	Tidy Towns All members of Ballitore Bio Project	
1.1.8	Use pollinator friendly planting in all containers and hanging baskets in the village. Create one large raised container on the paved area in front of the Shaker Store and plant with different herb species.	Tidy Towns All members of Ballitore Bio Project	March 2021
1.1.9	Plant the beds at Old Schoolhouse Lane with pollinator friendly herbaceous plants. Plant at 11 plants / m ² @ p9 pot size.		
1.1.10	Explore the opportunity to manage the grass verge on the Abbyfield Road as a wildflower meadow. This can be either a hay meadow or a bulb and shortcut wildflower meadow.		
1.1.11	Explore the opportunity to manage the grassland between the soccer pitch and Abbyfield as a wildflower meadow. This would not interfere with any future plans for this area.	Collaboration between millceltic & millview residents committee and BBP	
1.1.12	Identify a suitable location(s) within the village to develop a natural playground or natural play areas.	KCC Tanyard Committee	

Target	Target 1.2 Make the village's private lands more biodiversity friendly			
No.	Action	Who	When	
1.2.1	Run a 'Free Garden Tree Giveaway' on a Saturday morning in Feb/March. Tree mix (whips only) to include: Rowan, Birch, Hazel and Wild Cherry.	BPP		
1.2.2	 Explore the opportunity to carry out the following habitat enhancement works at Glanbia: A. Manage the lawn at the front entrance as a wildflower meadow. B. Plant a native hedgerow or climbers in front of the block wall. C. Explore the potential to install bird boxes on selected locations on the main building and grounds. 	BPP to engage with letter – Suzanne Glanbia Tidy Towns	By Jan 2021	
1.2.3	 Explore the opportunity to carry out the following habitat enhancement works at Mill View (all actions should be agreed with the residents): A. Plant a strip of native trees / native hedgerow along the length of the block wall on the northern boundary including the wider area of rank grass (where the existing playground is situated). B. Identify and manage selected areas as wildflower meadow with mown paths. This could be a hay meadow or a bulb and shortcut meadow. C. Plant fruit trees throughout the estate. D. Plant a hedge and trees along the grass bank between the estate and the soccer pitch. E. Replace the existing playground with a natural play space incorporating play equipment alongside and through the proposed habitat above. 	Mill View Residents Association Mill Celtic Committee BPP		

Target 1.2 Make the village's private lands more biodiversity friendly				
No.	Action	Who	When	
1.2.4	 Explore the opportunity to carry out the following biodiversity habitat enhancement works at Abbyfield estate (all actions should be agreed with the residents): A. Identify and manage selected areas of as wildflower meadow with mown paths. This could be a hay meadow or a bulb and shortcut meadow. B. Plant native hedgerows or climbers along the faces of the internal estate walls. 	No residents Committee in place at present. BPP Tidy Towns KCC		

Target 1.3 Make the village's surrounding lands more biodiversity friendly			
No.	Action	Who	When
1.3.1	Carry out a hedgerow resilience project by augmenting existing hedgerows in the surrounding landscape with new trees such as Oak, Wild Cherry, etc. This will future-proof hedgerows against the potential impacts of Ash Dieback.	Seek advice & assistance of Trees on the land organisation	2021-2022

Target	Target 1.4 Deliver species-specific conservation projects			
No.	Action	Who	When	
1.4.1	 Promote the village as a 'Swift Village' by creating nesting opportunities (Swift boxes on existing buildings and bricks for new developments including new residential and industrial sites), raising awareness locally of the issues facing the species and monitoring existing and new nest box sites. This could be delivered in partnership with local environmental Non-Government Organisations (eNGOs) such as Wild Kildare who require local people to help monitor population numbers. Carry out a Brimstone butterfly project: plant their larval food plant the 	BPP With the assistance and expertise of local eNGOs such as Wild Kildare Men's Shed to construct boxes. BPP		
1.4.2	native Buckthorn bush and run a promotional event about the species / project. Source native Purging buckthorn (Rhamnus cathartica). May be suitable ground along river banks.	With the assistance and expertise of local eNGOs		
1.4.3	Bullfinch were plentiful in the past. Plant a number of fruiting trees specifically to encourage them back.	Tanyard Committee BPP		
1.4.4	Carry out a local snowdrop conservation project. This should involve planting local heritage varieties of snowdrops in community and private spaces in the village; and raising awareness of them locally through events (see Action 2.1.15) and on signage.	Suzanne to contact Altamont Gardens to seek advice and possible specimen plants	March 2021	

Objective 2: Raising awareness of local

biodiversity & how to protect it

It is important to raise awareness so that the public, community & residential groups, and businesses know how to help our wildlife.

Target 2.1 Increase the number of people within the community who are aware of their local biodiversity and who understand the need to conserve it			
No.	Action	Who	When
2.1.1	Install one interpretation panel in a suitable central location in the village covering the natural & social history heritage of the area.	Tanyard Committee Tidy Towns, South Kildare Villages History group	Depending on grant money
2.1.2	Install small information signs covering the different wildlife spaces created as part of the development of the Tanyard.	Tanyard Committee & Suzanne	
2.1.3	Install small information signs covering the different plants, and the biodiversity supported by it, in the Library and Quaker Museum Garden.	KCC Library staff Suzanne	2021-2023
2.1.4	Run two practical workshops over the course of this BAP covering pollinators. The first could cover the different different groups of pollinators and how to identify them. The second could cover pollinator friendly planting ideas and tips.	Would need assistance and expertise from an outside source	2021
2.1.5	Use local social media to raise awareness of local biodiversity and conservation issues.	Suzanne	In place at present - ongoing
2.1.6	Run a traditional stone wall building workshop using the stone wall along Abby Row as a demonstration site. This would also help repair this wall to a good condition.	Assistance from KCC	2021 - 2023
2.1.7	Run a family fun day with a biodiversity theme in the village during National Biodiversity Week or National Heritage Week.	BBP	Start with Heritage week 2021 and each year going forward.
2.1.8	Run a wildflower seed harvesting workshop in July using a local hay meadow.	ВРР	Possibly 2021 if meadow is in place
2.1.9	Run a traditional hand scything demonstration event for National Heritage Week using a local hay meadow. This could form part of the proposed family fun day (see Action 2.1.7).	Assistance from outside source	2022
2.1.10	Run a minimum of 1 biodiversity talk / walk each year covering different species of wildlife such as birds, bats, other mammals, etc. This could be organised as a Zoom webinar if required	BBP with assistance from	2021 if Covid regulations

Target 2.1 Increase the number of people within the community who are aware of their local biodiversity and who understand the need to conserve it

	Action	Who	When
No.		and outside group /organisation	allow or zoom if it needs to be a webinar.
2.1.11	Run a family river dipping event to engage local people about the wildlife of the River Greese and the need to protect it.	Engage with Wild Kildare and ask for assistance with this	
2.1.12	Explore the opportunity to have an art project with a local artist and school children highlighting local biodiversity with paintings on the plant containers in the village.	Ask local artist resident in the village along with BBP	Start process in 2021
2.1.13	Explore the possibility to hold a community event featuring an exhibition of local wildlife photographer Suzanne Behan's work	Suzanne Behan Tanyard Committee BPP	2021
2.1.14	Run an exhibition of Lydia Shackleton's botanical works including those of snowdrops (see Action 1.4.4).	Contact National Botanical Gardens and Quaker Society	2022-2023 Funding would need to be applied for
2.1.15	Install one interpretation panel in a suitable central location in the village covering the natural & social history heritage of the area.	Tanyard Committee Tidy Towns, South Kildare Villages History group	Depending on grant money

Target 2.2 Support education opportunities in schools at all levels			
No.	Action	Who	When
2.2.1	Ensure the local schools have copies of the All-Ireland Pollinator Plan guides for schools and the Junior All-Ireland Pollinator Plan and are aware of all the resources available at www.pollinators.ie/resources	BPP	2021
2.2.2	Support the local schools with wildlife events / activities. Where possible this should utilise the different areas of habitat on the campus. This can be a wildlife walk, talk, or workshop.	BPP Local eNGOs School Parents & Friends Association?	2022
2.2.3	Install signage to maximise outdoor learning about the different areas of biodiversity habitat on the school grounds. These can be created by the school pupils as part of art class activities.	BPP School Parents & Friends Association ?	Work alongside schools time frame

Target	t 2.3 Provide clear information to different sectors withir	the communi	ty on how
they can take actions to enhance their spaces for biodiversity			
No.	Action	Who	When
2.3.1	Participate in, and if necessary help organise, a half day weed control workshop to raise awareness of the harmful effects of herbicide use on human health and for biodiversity to different landowners around the town. This workshop should also cover alternative weed control solutions where weed control is necessary and encourage a change of mindset in other situations where 'weeds' could be allowed to grow. Consider organising this event in partnership with other local communities.	BPP to research best person or organisation to deliver this workshop. KCC	2022
2.3.2	Participate in, and if necessary help organise, a series of county wide farm	BPP	
2.3.2	talks (min. of 2 per year) that will positively enhance biodiversity in the landscape e.g. utilizing farm green infrastructure for the farm business, farm woodland grants, etc. Communicate the details of each event with the local farming community.	Local Farmers	
2.3.3	Ensure the different sectors within the community have copies of the relevant All-Ireland Pollinator Plan resource guides e.g. sporting organisations, faith communities, etc.	BPP Suzanne	2021
2.3.4	Post links to the All-Ireland Pollinator Plan guides on local social media each year.	Suzanne	2021
2.3.5	Implement a policy of no Invasive plant species in new planting schemes in the village. e.g. no Laurel (<i>Prunus laurocerasus</i>)	BPP Tidy Towns	
2.3.6	Engage with Kildare County Council to ensure that all new developments in the village incorporate best practice green infrastructure design principles (e.g. use of bioswales) and biodiversity features (e.g. Swift bricks, see Action 1.4.1). Green infrastructure design should ideally be done at the planning and design	BPP Tidy Towns	2021
	stage. Where plans have developed beyond planning, engage with the developers about the benefits that green infrastructure design can deliver for them.		
2.3.7	Organise a practical workshop with Abbyfield and Mill View residents about actions they can take to enhance biodiversity within the estates.	BPP & Tidy Towns KCC ?	

Objective 3: Collecting evidence to

track change & measure success

To ensure that our actions are making a difference we need to gather a baseline of data on our wildlife and then measure our success or lack thereof against this. This data can be gathered through regular surveys and Citizen Science efforts. This plan sets out the following targets to achieve this:

Target 3.1 Build a baseline of data on local biodiversity and track changes			
No.	Action	Who	When
3.1.1	Monitor for Swifts in the village annually and the uptake of any newly installed Swift boxes.	Outside organisation	
3.1.2	Facilitate Wild Kildare's 'Moth Atlas' for the county	BPP	Yearly basis
3.1.3	Develop at least 1 bumblebee transect in the town and submit records to the NBDC	BPP and member of local community	Yearly basis
3.1.4	Develop at least 1 butterfly transect in the town and submit records to the NBDC	BPP and member of local community	Yearly basis
3.1.5	Record all biodiversity records onto the National Biodiversity Data Centre. Encourage other members of the community to do likewise.	BPP and member of local community	Yearly basis
3.1.6	Record and map all biodiversity actions delivered at: https://pollinators.biodiversityireland.ie/	BPP and member of local communnity	Yearly basis

Targe	t 3.2 Measure progress of this Plan on a regular basis		
No.	Action	Who	When
3.2.1	Set up a sub-committee that will be responsible for carrying out an annual review and steering the delivery of this BAP. This should include representatives of different sectors within the community.	ВРР	Completed 2020
3.2.2	The sub-committee shall carry out an annual review of the Action Plan.	ВРР	Oct 2021 and each Oct in the future years of the plan.
3.2.3	Carry out a more detailed mid-term review of the Action Plan.	BPP	April 2023
3.2.4	Carry out a full detailed review of the Action Plan in the final year.	BPP Along with KCC rep & Heritage Board rep.	
3.2.5	Plan for the updating / renewing of a subsequent 5-year plan to run from 2026-2030.	BPP KCC Heritage Board.	

Objective 4: Build local capacity to

manage & record biodiversity

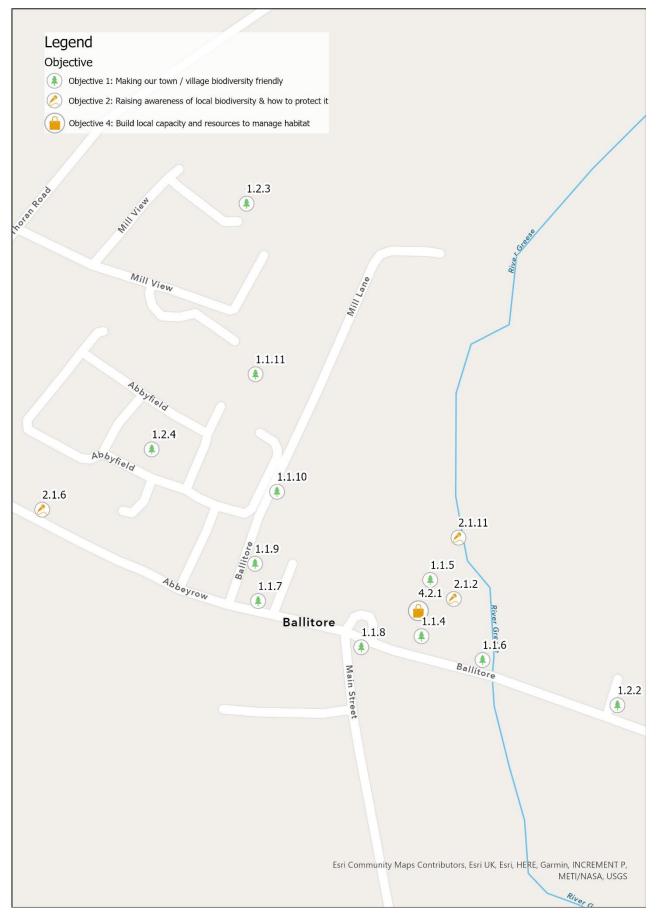
The following targets and actions aim to ensure that we have the resources and capacity to carry out the actions identified in Objectives 1-3.

Target	t 4.1 Build the capacity within the community to mana	ge and record bi	odiversity
No.	Action	Who	When
4.1.1	Identify all wildlife groups active in the Ballitore area and make contact and offer help / partner on local projects.	BPP	
4.1.2	Identify sources of native wildflowers (this should include Yellow Rattle) as places for community seed collections - this can include other donor sources in the county	BPP would need advice and expertise from outside sources	
4.1.3	Create an email list of local volunteers who can be called upon for practical conservation volunteering events throughout the year such as management of wildflower meadows, invasive species removal, tree planting, etc. (ensure GDPR guidelines are taken)	Suzanne on behalf of BPP	2021 and continuous process
4.1.4	Hold an event to communicate this BAP to the local community.	BPP Tidy Towns & Tanyard Committee	2021? If Covid regulations allow
4.1.5	Participate in a meeting of all 10 Kildare 2020 BAP applicants to discuss opportunities for collaboration to deliver selected projects outlined in this Plan.	ВРР	

Target 4.2 Build up local resources of materials and equipment to manage and record

DIOGIV	ersity		
No.	Action	Who	When
4.2.1	Install a community polytunnel at a secure location - the Tanyard may be a suitable location with the approval of the Tanyard Committee / Board. This will be used to grow all the town's flowers and plants for use in new community planting schemes. This will create the opportunity to raise funds by selling native plants and pollinator friendly plants.	Tanyard committee Men's Shed Project	2021/2022
4.2.2	Source meadow maintenance equipment for community use. Options available are to 1) purchase equipment, potentially in partnership with other neighbouring towns and villages; 2) work with the private sector to build up their capacity for managing meadows (hire companies and / or local landscape contractors), or 3) to work with KCC for them to build internal capacity / resources. If working with other neighbouring groups then an annual schedule for its use, maintenance /servicing plans, insurance & other costs should be agreed in advance.		
4.2.3	Build up stock of biodiversity educational resources such as identification guide books. Liaise with the local library.	BPP Ballitore Library	
4.2.4	Build up a stock of biodiversity recording equipment such as bat detectors, moth traps, etc.		
4.2.5	Construct a bird/hide wildlife viewing area for the local community in the Tanyard , provide bird feeding stations and natural habitat for small mammals and all species of butterflies and bees etc.	Suzanne; BPP; Men's Shed	2021-2023 - depending on funding

Mapping the Actions



Section 4: Resources

It is not necessary to re-invent the wheel in order to deliver this plan. There are numerous people, organisations, publications and online resources available to achieve the best possible outcomes. Some of these are outlined in this section, although this is not intended to be an exhaustive list. It will also be important that as new information becomes available that this should be considered and actions delivered or adjusted accordingly.

Did you know: Of the 62,000 townland names in Ireland, 13,000 have reference to trees and 1,600 have some derivation of 'dair' the Irish word for oak. For example, Cill Dara (Kildare) meaning 'Church of the Oak' Kildare.

> This leaf vacuum can be used to harvest native wildflower seed from local meadows which can then be used to increase diversity in new community meadows.

Links to useful online resources

The following is a list of useful links to guides on a range of common biodiversity subjects.

Subject	Link(s)
Bats	https://www.batconservationireland.org/
	 https://kildarebatgroup.wordpress.com/
Birdwatching	 http://www.birdwatchkildare.com/?page_id=23
birawatering	 http://www.birdwatchireland.ie/irelands-birds-birdwatch-ireland/
	• www.irishbirding.com
Children's Biodiversity	 https://birdwatchireland.ie/our-work/fun-learning/for-kids/
Activities	 https://www.woodlandtrust.org.uk/blog/2020/03/kids-nature-activities-self-isolation/
	 https://www.rspb.org.uk/fun-and-learning/
General Biodiversity	https://www.biodiversityireland.ie/
Issues	• www.npws.ie
Habitat Boxes	https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-
	1-ALT FINAL.pdf
	https://birdwatchireland.ie/app/uploads/2019/09/Nestboxes-factsheet.pdf
	https://www.batconservationireland.org/wp-
	content/uploads/2015/05/BCIrelandGuidelines BatBoxes.pdf
Hedgerows	• https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-
	<u>3-FINAL-1.pdf</u>
	 <u>https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf</u>
	https://63273-649646-raikfcquaxqncofqfm.stackpathdns.com/wp-
	<pre>content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf</pre>
	https://mosart.ie/wp-content/uploads/2016/02/Irish-Hedgerows-Networks-for-Nature.pdf
	<u>www.hedgelaying.ie</u>
Interpretative Signage	<u>https://www.nature.scot/sites/default/files/2019-11/Guidance%20-</u>
	%20Natural%20heritage%20interpretation 1.pdf
	<u>https://www.heritagecouncil.ie/content/files/bored_of_boards_1mb.pdf</u>
	<u>https://pollinators.ie/resources/signage-templates/</u>
Invasive Alien Species	<u>https://invasivespeciesireland.com/</u>
a limit to ta	<u>https://www.fisheriesireland.ie/Invasive-Species/invasive-species.html</u>
Local Biodiversity	https://www.facebook.com/Wild-Kildare-1437313092971392/
News	<u>http://www.birdwatchkildare.com/</u> http://www.birdwatchkildare.com/
	 <u>https://kildarebatgroup.wordpress.com/</u> http://www.kildare.ie/CountyCouncil/Heritage/Biodiversity/
Noturo Troile	
Nature Trails	<u>http://www.walkingroutes.ie/WalkingTrails/Kildare</u>
Orchards	 <u>http://www.irishseedsavers.ie/blog/wp-content/uploads/2014/10/CreatingAnOrchard.pdf</u> <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_da</u>
	ta/file/11466/1973262.pdf
	 http://www.wetlandsystems.ie/goephow.html
	 http://www.theorchardproject.org.uk/
Peatlands	• www.ipcc.ie
	www.bordnamona.ie/transform/biodiversity
	• www.abbeyleixbog.ie
Pollinator Friendly	https://pollinators.ie/resources/
Planting Schemes	 https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf
	• www.rhs.org.uk
Pollinators	https://pollinators.ie/
Recording Biodiversity	https://www.biodiversityireland.ie/record-biodiversity/
Reducing Herbicide	 https://greensideup.ie/16-natural-alternatives-to-herbicide-why-you-should-use-them/
Use	
Schools & Biodiversity	<u>https://greenschoolsireland.org/biodiveristy/</u>
	<u>https://pollinators.ie/schools/</u>
	<u>http://www.heritageinschools.ie/teachers-resources/strand/living-things-science/p3?q=&c=</u>

Subject	Link(s)
	 <u>https://www.eckilkenny.ie/images/Biodiversity_Plan_for_Schools.pdf</u> <u>http://www.heartoftheglens.org/cms/wp-content/uploads/2017/12/Teachers-Outdoor-Learning-Resource.pdf</u> <u>http://www.ipcc.ie/discover-and-learn/resources/</u>
Swifts	 <u>https://birdwatchireland.ie/our-work/surveys-research/research-surveys/swift-surveys/</u> <u>www.swiftconservation.ie/</u>
Tree Identification & Selection	 <u>https://www.treecouncil.ie/nativeirishtrees</u> <u>https://drive.google.com/file/d/0B-qemRFHRDRSVnh3bmxGOEVaMHc/edit</u> <u>http://www.clarecoco.ie/services/planning/publications/tree-design-guide-for-towns-and-villages-in-co-clare-2017-28115.pdf</u>
Wildflower Meadows	<u>https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf</u>
Wildflowers	 <u>http://www.wildflowersofireland.net/index.php</u> www.bsbi.org
Wildlife Ponds	 https://www.wildlifetrusts.org/actions/how-build-pond https://invasivespeciesireland.com/wp-content/uploads/2017/10/AQUATICS_BOOK5.pdf
Woodland	 <u>http://www.woodlandsofireland.com/sites/default/files/Management%20Guidelines%20for%</u> 20Ireland%27s%20Native%20Woodlands%202017.pdf <u>https://www.forestryfocus.ie/social-environmental-aspects/biodiversity-and-nature-conservation/biodiversity-in-forests/conservation-and-restoration/</u> <u>http://www.woodlandsofireland.com/sites/default/files/Silvicultural%20Guidelines%20for%20</u> <u>Native%20Trees.pdf</u> <u>https://www.wildlifetrusts.org/wildlife-advice/how-manage-woodland-wildlife</u>

Potential project funders

The following table outlines some of the potential sources of funding to help deliver the actions outlined in this Plan. It is also worth remembering other traditional forms of fundraising such as working with local businesses, bucket collections, table quizzes, etc.

Fund / Funding Body	Description
LEADER Programme, County Kildare LEADER Partnership CLG	To discuss potential project ideas and the availability of funding, contact the County Kildare LEADER Partnership offices at (045) 895 450 or email <u>info@countykildarelp.ie</u> . Website: <u>www.countykildarelp.ie/</u>
Kildare County Council	For additional information in relation to funding for biodiversity and heritage projects, contact the Heritage Officer - Tel. 045 980791 or email <u>heritageofficer@kildarecoco.ie</u>
Community Environment Action Fund – Kildare County Council	Formerly known as LA21, this fund covers small community environmental projects.
Community Foundation for Ireland	The Community Foundation for Ireland has funded biodiversity surveys and action plans under their Environment and Nature programme. https://www.communityfoundation.ie/insights/news/environment-and-nature-fund-2019
Heritage Council	The Heritage Council supports a wide range of heritage projects throughout the country through our annual grants programme. https://www.heritagecouncil.ie/funding
Waters & Communities	Their aim is to support communities and stakeholders in the delivery of local water quality projects and initiatives and have an annual grant package available. Contact your local officer to discuss potential projects by searching: http://watersandcommunities.ie/community-water-officers/
Trees on the Land	This charity aims to increase the amount of native Irish trees across Ireland. https://www.treesontheland.com/
NeighbourWood Scheme	This Forestry Service grant supports the creation and enhancement of new native community woodland schemes over 1ha in size (up to 12ha size) including the improvements to woodland facilities such as trail infrastructure. <u>https://www.agriculture.gov.ie/media/migration/forestry/grantandpremiumschemes/201</u> <u>5/NeighbourWoodScheme240717.pdf</u>

Useful contacts & sources

To help deliver the actions it will be important to work with a range of local and national stakeholder groups. The following outlines some of these. It is worth remembering that there may also be local individuals in your community who have particular interests and skillsets worth tapping into to deliver the actions. Remember that skills other than ecological skills can be an important asset when delivering certain actions.

Organisation / Group	Area of Expertise	Contact Details
Kildare County	The local Heritage Officer is available to	Tel. 045 980791 or email
Council	discuss and provide information on	heritageofficer@kildarecoco.ie
	biodiversity and heritage related matters	
	and projects.	
Kildare Public	Public Participation Networks (PPNs) act as	Telephone: 045 980700
Participation	an independent structure to facilitate	Email: admin@kildareppn.ie
Network	public participation in policy and decision	Website: https://www.kildareppn.ie/
	making with the local authorities.	
	Community and voluntary, social inclusion,	
	and environmental groups are encouraged	
Country Wildows	to join Kildare PPN.	Talanhana: (045) 005 450 Email
County Kildare LEADER Partnership	If your idea is eligible in principle for	Telephone: (045) 895 450. Email
CLG	LEADER funding, a Project Development Officer will work with you to develop	info@countykildarelp.ie. Website: www.countykildarelp.ie/
CLU	specifications of your project, help you with	
	procurement, and assist in bring forward an	
	application for funding. Funding is available	
	in the following categories: capital, training,	
	marketing, and analysis and development	
Wild Kildare	Local volunteer environmental	https://www.facebook.com/Wild-Kildare-
	organisation.	1437313092971392/
Irish Wildlife Trust	National environmental charity covering all	https://iwt.ie/
	aspects of biodiversity.	
BirdWatch Ireland	For information on Ireland's birds.	https://birdwatchireland.ie/
Kildare		
National Parks and Wildlife Service	Responsible for managing the Irish State's nature conservation responsibilities.	https://www.npws.ie/
All-Ireland Pollinator	National Plan with the aim of creating	https://pollinators.ie/
Plan	an Ireland where pollinators can survive &	
	thrive.	
National Biodiversity	National centre for the collection, collation,	https://www.biodiversityireland.ie/
Data Centre	management, analysis and dissemination of	
	data on Ireland's biological diversity.	
Vincent Wildlife	National environmental charity with the	https://www.vincentwildlife.ie/
Trust	aim of conserving and research into	
	selected Irish mammals.	
Botanical Society of	National organisation that promotes the	https://bsbi.org/ireland
Britain & Ireland	study, understanding and enjoyment of	
The Level Authority	British and Irish botany.	http://watarcandoom.com/tics.ic/
The Local Authority	A shared service working with Local	http://watersandcommunities.ie/
Waters Programme (Waters &	Authorities and State agencies to meet obligations under the EU Water Framework	
Communities)	Directive for the development and	
communices	implementation of River Basin	
	Management Plans in Ireland.	
Working Together	Local wildlife group.	https://www.facebook.com/biodiversityballitore/
for Ballitore		<u> </u>
Biodiversity		

Ballitore Tidy Towns	Local Tidy Towns group.	-
The Tanyard	Local community centre	https://www.facebook.com/thetanyardballitore
Bat Conservation Ireland	An all-Ireland charity that promotes the conservation of bats and their habitats.	https://www.batconservationireland.org/
Kildare Bat Group	Members of Bat Conservation Ireland with a particular interest in Kildare bats.	https://kildarebatgroup.wordpress.com/
Kildare Animal Foundation	A local non-profit organisation dedicated to the welfare of cats, dogs and small animals.	https://animalfoundation.ie/
Irish Peatland Conservation Council	A national charitable organisation with the aim of conserving and protecting a representative sample of Irish bogs, and to campaign on bog-related issues.	http://www.ipcc.ie/
Kildare Community 4 Climate Action	This is a network of groups and individuals who are working together for climate action and community resilience in Kildare. The network originated as a result of the LEADER-funded "Communities 4 Climate Action" training programme that was held in 2019.	https://www.facebook.com/KildareC4CA/



The All-Ireland Pollinator Plan is one of the best sources of information on how to make our community spaces better for pollinators and wildlife in general. Check out the resources section of their website here:

https://pollinators.ie/resources/

Habitat Management Guidelines

Wildflower Meadows:

Before creating any new meadows, it is important to consider and plan for the maintenance requirements. If the proper planning is not done at the outset it may cause considerable hassle down the line. This is particularly important for the end of season cut of a hay meadow as the grass could be knee height. Remember meadows are managed landscapes! You will need to consider the following:

- Who is going to cut the meadow?
 - o Is it volunteers, the local authority or a contractor?
 - Or for larger meadows can it be conservation grazed?
- How are they going to cut it?
 - Have they got the right equipment suitable for the site?
- How are you going to gather and remove the cuttings from the site?
- What are you going to do with the cuttings after they have been removed from the site?

There are a few different types of wildflower meadows that you may consider depending on your site and preferences. Each requires different management. We have listed two such types of meadows here:

Hay Meadows:

- Cut 1-2 times per year, once at the beginning of the season to remove any winter growth and a final cut in mid-August to September (if there are late flowering species then you may consider delaying the cut)
- Mow the fringes along paths, car parks and roadsides •
- Mow paths through larger meadows to encourage people to use them
- Put up signs to let people know what you are doing •
- Increase species diversity as needed by harvesting local seed and either over-seeding it on the grass after it has been cut or by growing the seed on as plug plants for planting out the following spring.

Short Cut Meadows:

- Cut approximately every 6 weeks from mid-April through to autumn
- Mow the fringes along paths, car parks and roadsides
- Mow paths through larger meadows to encourage people to use them
- Put up simple signs to let people know what you are doing
- Increase species diversity as needed by harvesting local seed and either over-seeding it on the grass after it has been cut or by growing the seed on as plug plants for planting out the following spring.



For more information visit the All-Ireland Pollinator Plan website and resources page:

https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf

Designing and Planning for New Tree Planting in Community Spaces:

For the creation of new areas of community woodlands, copses, avenues or individual trees on community spaces the most important thing to remember is 'Right Tree Right Place'. Remember that for all larger woodland creation projects and works on existing woodlands, you should always seek expert advice before proceeding.

The following are some of the practical considerations that should help guide you in the design and planning for smaller tree planting projects:

Local Site Considerations	Soil - is it very wet or free draining?
-	Is the site designated (as natural, built or archaeological) or adjoining a designated site or site of particular biodiversity interest? If so, check with relevant organisation for approval.
-	For larger planting schemes, do you need to prepare the site for planting?
-	Do you need to protect against rabbits / hares / deer?
-	Check for overhead powerlines or underground services.
Practical Design Considerations	Consider safety and sightlines - set back from primary paths in public spaces or at road junctions
considerations	Consider whether anti-social behaviour is a problem in the area and manage for it in advance
	Where possible, include other community amenities as part of larger planting schemes - paths, outdoor classrooms, natural play, picnic tables, etc.
	Consider neighbouring houses before planting.
-	Where possible, plant small groups of trees in public spaces instead of lots of individual trees. This will be easier to maintain.
	When planting trees at larger sizes you'll need to stake and tie them. Remember to adjust tree ties each year and remove after 2-3 years.
Community & Stakeholder Consultation	Consult with local community to gain support for the works. Be innovative with how you engage local families and children in the development of the woodland e.g. dedicate a tree to each family resident next to the project, carry out volunteer tree planting events, develop ancillary amenities such as benches and natural play, etc.
-	Communicate the plans with the person or organisation responsible for maintaining the green spaces (i.e. local authority, contractor or local volunteer) to avoid accidental damage to the trees.
-	Agree a plan for managing around the base of individual trees to avoid damage from lawnmowers and strimmers.

For more practical information, check out the Trees on the Land website: <u>https://www.treesontheland.com/planting-guide</u>

Managing for Pollinators:

- Think about their essential needs food, water, & shelter and try to provide these where possible because just like us they cannot survive without them.
- Use pollinator friendly perennials (and small shrubs such as lavender) instead of annual bedding plants in flower beds and containers (see Appendix 2 for some options).
- For butterflies and moths, consider the larval foodplants of these species. For example, the nettle is the foodplant for the caterpillars of 5 species of butterfly.
- Minimise the use of herbicide for managing weeds. Where possible try to embrace these native wildflowers for their visual interest and biodiversity value.
- Check out the All-Ireland Pollinator Plan for lots of practical tips and ideas on managing for pollinators: <u>https://pollinators.ie/</u>



Did you know: 100 crops provide 90% of the world's food. Of these, 71 are pollinated by bees!



Planting for Biodiversity

Pollinator-friendly plant list recommended for community / garden flowerbeds

Herbaceous Perennials – tall for the back of beds	Herbaceous Perennials – short for the front of beds
 Japanese anemones (Anemone x hybrid) – pink and white (autumn); Verbena bonariensis (late summer); Foxgloves (Digitalis spp) (early summer); – both pink and white varieties; Mullein (Verbascum spp) (summer); Fennel (Foeniculum vulgare); Teasel (Dipsacus sp.) - Goldfinches love their seeds in winter. Some Rudbeckia daisies will add bold colour too. 	 Sedum 'Autumn Joy' (autumn); Masterwort (<i>Astrantia major</i>) (available in various shades of pink and white, long flowering from summer into autumn); Yarrow (<i>Achillea</i> spp) (summer into autumn); Avens (<i>Geum</i> sp.) – brightly coloured with long-lasting flowers; Columbine/Granny's bonnet (<i>Aqiliegia</i> sp) (early summer) Macedonian scabious (<i>Knautia macedonica</i>). Hardy Geraniums/Cranesbills (<i>Geranium</i> spp) in a mix of colours, blue, pink and white. These plants (particularly blue varieties such as 'Johnson's blue') partner well with Lady's mantle (<i>Alchemilla mollis</i>) which are particularly lovely planted along the edges of beds. Lenten Hellebores (<i>Helleborus orientalis</i>) will give winter and spring interest. Penstemons: A semi-woody perennial with tubular flowers that last from early summer right through to late autumn. Lady's mantle (Alchemilla mollis): attractive green flowers and leaves that flop over bed edges.

Also consider:

- Herb species are great for pollinators as well as providing food for ourselves: chives, thyme, rosemary, oregano / marjoram and sage.
- Native wildflowers add great colour and biodiversity interest & will be a great addition to flowerbeds. Some may be crucial for different species of native biodiversity as food plants.

General list of shrub and tree species recommended for biodiversity enhancement:

Native Hedgerow Mix Species to Select From	Planting & Managing a Native Hedgerow for Biodiversity
 The main hedging species is: Hawthorn / Whitethorn (<i>Crataegus monogyna</i>) Smaller percentages of the following species: Elder (<i>Sambucus nigra</i>) Blackthorn (<i>Prunus spinosa</i>) Hazel (<i>Corylus avellana</i>) Holly (<i>Ilex aquifolium</i>) Privet (<i>Ligustrum vulgare</i>) Spindle (<i>Euonymus europaeus</i>) Guelder rose (<i>Viburnum opulus</i>) Dog rose (<i>Rosa canina</i>) 	 Plant @ 4-8 plants per metre Plant in a double staggered row where possible Allow 1.5-2m width for a mature hedge – the wider the better! Cut on a 3-year cycle so that the it can flower and fruit Cut outside the bird nesting season (1st March-31st August) unless for road safety reasons

Trees such as Oak (*Quercus robur*), Crab apple (*Malus sylvestris*), etc. should be planted randomly along the length

 neutral/limestone soils Sessile oak (Quercus petraea) – prefers slightly acid soils Willow (Salix spp) – good for damp/ waterside conditions Hazel (Corylus avellana) – likes neutral to limey soils Alder (Alnus glutinosa) – good for damp/ waterside conditions Alder (Alnus glutinosa) – good for damp/ waterside conditions Aspen (Populus tremula) Silver birch (Betula pendula) Downy birch (Betula pubescens) - good for damp/ waterside conditions Yew (Taxus baccata) – note that 'fastigiata' is the upright form (Irish Yew) Holly (Ilex aquifolium) Rowan / Mountain ash (Sorbus aucuparia) – flowers and fruit for spring and autumn 	<pre>ner (Calluna vulgaris) - prefers acid/peaty soil er (Erica cinerea) - prefers acid/peaty soil conditions tisus scoparius) terrific colour, blooming through y. Pyracantha)* - a very thorny climber, good for wall creamy blossoms in summer and colourful berries</pre>
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 Whitebeam (Sorbus aria) – flowers and fruit for spring and autumn interest Crab apple (Malus sylvestris) – flowers and fruit for spring and autumn interest Wild cherry (Prunus avium) – flowers in spring and colourful fruit and leaves in autumn Purging Bu shrub – the Alder-buck 	Different species have different coloured berries m yellow through orange to scarlet red. le/Woodbine (<i>Lonicera periclymenum</i>) – a climber ifully scented flowers, particularly in the evening attract nectar-seeking moths. <i>Rosa canina</i>) – a climber with beautiful flowers in ed rosehips in autumn. <i>bucus nigra</i>) – creamy flowers (most important in a very tasty cordial!) in June and black berries in hly edible when cooked, great for jams and jellies) ee (<i>Euonymus europaeus</i>) – strikingly beautiful ds carried in bright pink capsules called 'cardinals' (<i>Prunus spinosa</i>) – featuring sloe berries in exthorn (<i>Rhamnus catharticus</i>) – an uncommon e favourite food plant of the Brimstone butterfly thorn (<i>Frangula alnus</i>) – a rare native also y the Brimstone butterfly.

*indicates a species not native to Ireland but non-invasive and wildlife friendly.

Selecting Plants

Point of Note	Reason
Use native plants including wildflowers where possible	 Native wildlife has adapted alongside these species and so they will typically support more wildlife than exotic species It conserves our local flora
For native species; only use Irish provenance stock	 They are better suited to the Irish climate It helps conserve local genetics Minimise the risk of importing new pests and diseases. Supports local Irish growers

Invasive Alien Species

Invasive Alien Species (IAS) are plants or animals that were introduced and are causing problems for native biodiversity. It is important that we can recognise the main IAS and take appropriate steps to control them:

- Avoid using IAS in new planting schemes and where possible remove existing ones. Encourage other local groups, landowners and the local authority to do the same.
- Raise awareness of IAS by delivering talks and posting on social media about them and the problems they cause.
- Carry out IAS surveys and submit records to the National Biodiversity Data Centre and the local authority.

Species	Problem(s)
Some of the Common Terrestr	ial Plant IAS
Himalayan Balsam (<i>Impatiens</i> glandulifera)	Can dominate riverbanks and outcompete native flora
Japanese knotweed (Fallopia	Can dominate riverbanks and outcompete native flora
japonica)	Can negatively impact built structures
Giant Hogweed (Heracleum	Can dominate riverbanks and outcompete native flora
mantegazzianum)	Can cause serious skin burns to humans
Giant Rhubarb (Gunnera tinctoria)	Can dominate riverbanks and outcompete native flora
Monbretia (<i>Crocosmia</i> spp.)	Can dominate grassy areas and outcompete native ground flora
Spanish Bluebell (<i>Hyacinthoides</i> <i>hispanica</i> and hybrids)	They hybridize with native Bluebells
Cherry laurel (Prunus laurocerasus)	Can take over woodland and prevent native ground flora & saplings from growing.
Rhododendron ponticum	Can take over woodland and prevent native ground flora & saplings from growing.
Pheasant Berry (<i>Leycesteria</i> Formosa)	 Can take over native woodland and prevent native ground flora & saplings from growing.
Some of the Common Aquatic	Plant IAS
Floating pennywort (Hydrocotyle ranunculoides)	 Can grow up to 20cm per day and may quickly dominate a waterbody. Forms thick mats which can look like land & so be a danger to people & livestock Impedes water flow and chokes waterways which can make it difficult for boats and angling and can increase the risk of flooding. Poses a threat to plants and fish by blocking out light and impeding access to fish feeding and resting spaces.
Curly Leaved Waterweed (<i>Lagarosiphon major</i>)	 Capable of forming very dense infestations in suitable habitats & occupying the full water column in waters up to 6m deep with significant impacts on native wildlife. Serious threat to tourism, angling, boating & other recreational pursuits as well as conservation goals.
Parrot's feather (Myriophyllum	Can produce a thick raft of vegetation.
aquaticum, Myriophyllum	 A fragment as small as 5mm can re-grow.
brasiliense, Myriophyllum	• Poses a threat to plants & fish by blocking out light & reducing oxygen levels.
proserpinacoides)	Can choke waterways so increasing the risk of flooding.
New Zealand pigmyweed (Crassula	 Can regenerate from tiny fragments & therefore easily takes over new areas. Forms very dense mats which overgrow native plants and reduces light levels.
helmsii)	 Forms very dense mats which overgrow native plants and reduces light levels. Currently only recorded from one site in Ireland.
Water primrose (Ludwigia	 Grows into a thick carpet which can out-grow native species and clog waterways.
grandiflora)	
Water fern (Azolla filiculoides)	Produces a thick mat of floating vegetation.Danger can lie when people and livestock attempt to walk on it.
	 The plants are so small, at no bigger than 2.5cm, that it can easily be transported
	on other plants as a contaminant.
	• Reduces oxygen levels in the water.

Equipment Checklist

The following is a list of some useful equipment to help manage your wild habitat and carry out Citizen Science work. Please make sure that any tools or machinery are only operated by suitably trained persons, that they are kept in good repair, all necessary health and safety precautions are followed, and that they are fully insured. The same applies to any contractors hired to undertake works on your behalf. Please note that due to Covid 19 it is worth considering any other special health measures and equipment that may need to be taken when carrying out community work.

Equipment	Description	Tick (√)
Wildflower Med	adows	
Polytunnel	It is useful to have at least one community polytunnel to grow wildflower plugs from locally harvested seed that can then planted out into local public meadows. It is ideally located in a secure place where dedicated person(s) responsible for managing the plugs can have access to it. Suitable venues include a community garden / allotment garden and in schools (where the pupils can grow some trays on as part of a school project). These can double up during the main growing season for fruit and vegetable growing.	
Meadow Cutting Tools / Machinery	 For larger meadows: consider using a local contractor with the right equipment. Where it's not practical to get a contractor then some of the following machinery / tools may be considered: Power scythe with hay rake and mini-baler or a buck rake (this could be purchased in partnership with other local groups or by Kildare County Council) Brush cutter Hand held scythe, hay forks and rakes 	
Seed Harvesting	There are a few ways of harvesting your own wildflower seed. For most, it may be simply harvesting seed by hand, in which case you will need something to put it into e.g. a paper yogurt cup or cotton pillow sack are ideal. To collect certain seed such as Yellow Rattle seed on a larger scale it would be worth purchasing or hiring a leaf vacuum.	
Seed Storage	To dry the collected wildflower seed you can simply spread it out in cardboard box(es). If the seed is fully dry when collected it can also be stored in breathable pillow cases / sacks in a cool dry room. Do not store in plastic bags or containers as the seeds may sweat and spoil.	
Everyday Habit	at Management	
Hand Tools	It is useful to have a stock of general tools available for carrying out community volunteer days such as tree planting, basic invasive species control of selected species, etc. You can always ask volunteers to bring their own but it is useful to have some spares. These will include: spades, loppers, saws, rakes, wheelbarrows, buckets, lump hammer, mattock, etc.	
Hand Held Power Tools	Similar to the hand tools above, having some hand-held power tools for the group may be useful. A cordless drill is probably the most important of these. Other power tools may be available either privately from members / volunteers or through rental hire as needed.	
Safety Equipment	It is very important that all volunteers have the necessary protective clothing for the jobs being carried out. Some of the basic equipment worth having a supply of include Hi-Viz vests, ear muffs, gloves, dust masks, visors and safety goggles.	
Citizen Science	& Community Events	
Identification resources	There are identification books for all the common species groups and habitats. The National Biodiversity Data Centre also has swatches available from their online shop.	
Bats	Consider having a few bat detectors (and torches!) for bat events, as most people may not have one. The Magneta Bat5 is a good starter model.	
River Sampling	River sampling events are great for families and children. For these you'll need some trays or buckets, charts and fishing nets.	
Butterfly and Bumblebee Events	Pollinator workshops and events are always popular to run during the summer. They are even better when there is a field element to it and it is useful to have a few butterfly nets and some potting jars to help identify specimens.	
Moth Identification	Another really great Citizen Science project is the identification of moths. It is useful for the community to have (or have access to) a few moth light traps with suitable batteries and chargers and the identification guide books (both for micro and macro moths).	
Bird Identification	For bird identification events it can be useful to have a few spare pairs of binoculars (although it is normal to ask people to bring their own).	

Examples of Wildflower Meadow Maintenance Equipment



Examples of Equipment for Citizen Science and Community Events



Did you know: The National Biodiversity Data Centre has taken in over 650,000 species sightings as of November 2020

Mood Board

Interpretation



Murals are a great option to brighten up a dull wall.



Biodiversity interpretation post, a relatively inexpensive option.

Sculptures



A bespoke sculptural feature in Ennis Town Centre.



An artistic willow weave sculpture on the roundabout beside Kildare Shopping Centre.

²ollinator Bec



Encourage people to use them by mowing paths and installing seating and breakout points.



They are great for natural play and add interest to otherwise dull mown grasslands.



They can be used in a range of different settings to deliver multiple economic, social & environmental benefits.



They are a part of our cultural heritage and landscape and can be used to encourage tourism.





Use native wildflowers in mixes where possible as they have added benefits for wildlife and they are every bit as attractive as non-native species.



Perennial pollinator-friendly plants add visual interest, reduce annual work and costs, and are great for wildlife.



Natural play uses natural features to create play opportunities.





They can be much more cost effective to install and maintain and are often much more interesting.



Forest gardening is a way of managing woodlands for productive uses such as wild food and timber products. Each layer of the woodland is managed for this including the canopy, shrub and ground floor. They have been developed in a wide range of settings including private gardens, schools, public green spaces, residential spaces (such as above in Manchester, England), etc.



Natural features such as earth banks and planting make great play features and can be used in combination with slides, etc.



Natural habitats such as meadows and woodlands are great natural playgrounds.



Edible hedges are a form of linear woodland which uses a wide range of berry and nut species to create a hedge.



Bioswales can be used in urban areas to manage and treat rainwater runoff from roads, car parks and other hard surfaces. They allow the water to drain slowly into the ground. Vegetation helps treat the water and add biodiversity value & visual interest.



Green roofs, even on small canopies such as above, deliver a wide variety of environmental benefits such as clean air, retain and improve water quality, have air cooling effects add visual interest and are great for biodiversity.





reening the Gr



This bioswale, in an urban park setting, is allowed to fill up during heavy rain water events and drain slowly after. It has become an amenity within the park and has significantly increased the amount of biodiversity within the park. Residential and public green spaces should be designed to deliver multiple benefits like this park achieves.



Green walls can soften grey urban spaces and deliver a wide range of other benefits such as sequester carbon, reduce the urban heat island effect, increase biodiversity, etc.



In a lot of cases green walls can simply be created by planting climbers such as native ivy (Hedera helix) on bare walls – they are particularly good to cover up dull block work walls (photo above shows a newly planted wall in Portlaoise).

Section 5: Results of Questionnaire

Did you know: 5 native butterfly species rely on the common nettle as their larval foodplant The purpose of the questionnaire was to gather information from the ten communities on biodiversityrelated issues relevant to them and their local area. It gathers information about the importance of biodiversity in their everyday lives, local sites or features of biodiversity value, preferences for events going forward, and their willingness to get involved in delivering actions such as those set out in this plan.

It was delivered as an online survey using Google Forms during the training period from September to November 2020. All participants were invited to complete the questionnaire as part of the training. Forty-five people responded to the questionnaire and the results are explained below.

Question 1: How important is the natural environment to your everyday life?

All 45 participants from across the ten communities answered this question. Options were provided on a scale of 1 to 5, with 5 being 'very important' and 1 being 'not important'.

There were thirty-five respondents who gave it a rating of 5, nine gave it a rating of 4 and one gave it a rating of 3.

Conclusion: Overall the natural environment is very important in the everyday lives of the people who responded to this questionnaire. This would suggest that it is important that we conserve biodiversity in local communities and there will be an appetite amongst them to see actions carried out that will do this.

Question 2: List 3 ways that you think nature and biodiversity can deliver benefits for your community or site of interest (Ballitore Responses Only).

The responses listed a range of different ecosystem services that benefit the village. Some of the most common benefits listed included that habitat creation boosts local species of wildlife such as birds and pollinators, that nature is important for creating peaceful spaces for the community to enjoy, that it brings the community together around a common cause and the benefits for our health and well-being.

Question 3: List your top 3 biodiversity hot spots in your locality (Ballitore Responses Only).

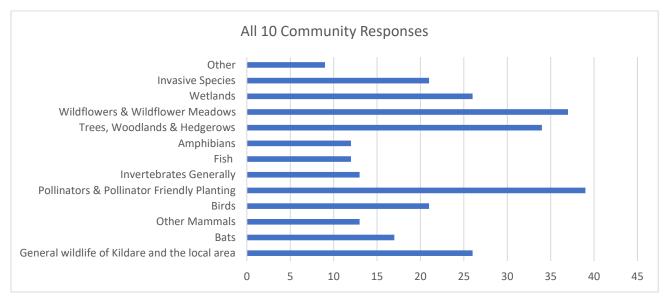
The responses highlight a range of sites both in the village and in the surrounding landscape that are seen as important for biodiversity. The biodiversity hotspots that were mentioned by most Ballitore respondents were the River Griese, the roadside verges, and the trees and hedgerows in the village and surrounding landscape. The green spaces within the residential estates and around Mill View Celtic FC grounds were highlighted as key spaces. The Tanyard was also recognised as an important site within the village.

Question 4: Would you like to get involved in helping biodiversity in your local area? (Ballitore Responses Only).

All respondents stated that they would be interested in getting involved in helping biodiversity in Ballitore. The main area of interest was the planning and development of biodiversity projects in the Tanyard.

Question 5: To raise awareness of local biodiversity, which of the following would you like to be covered through community training events such as evening talks, webinars, walks, etc. (responses for 10 groups)

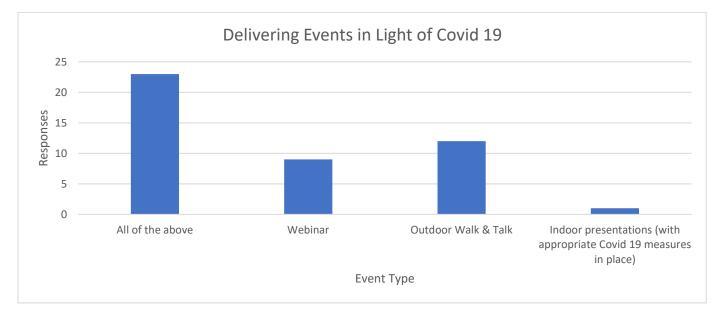
Events related to pollinators and pollinator-friendly planting, wildflowers and wildflower meadows, and trees, woodlands and hedgerows were the most popular responses with each of these receiving over 30 mentions each. Events about general wildlife of Kildare, invasive species, birds and wetlands were also popular with each receiving over 20 mentions each. The full list of responses is shown below.



There were no 'other' suggestions from the respondents from Ballitore.

Question 6: Covid 19 has changed how talks / workshops / presentations are delivered, at least in the short term, with webinars becoming more widely used. Which of the following would be your preferred format for community biodiversity events during this period?

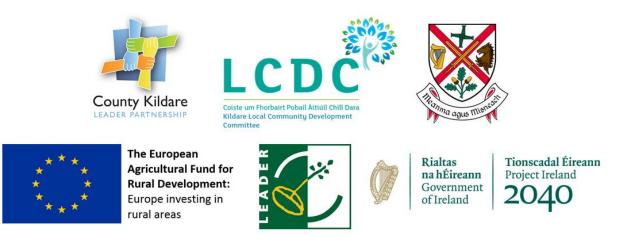
The majority of the responses were for a mix of different event types, with each obviously taking appropriate measures in relation to Covid 19. Of the singular event types, outdoor walks and talks were the most favoured, followed by webinars.



Responses shown: All 10 communities

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