

Newbridge

Biodiversity Action Plan 2021-25



The European
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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 Newbridge Tidy Towns for nominating Newbridge 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:

Newbridge Tidy Towns by email: newbridgetidytowns@gmail.com

or

Kildare County Council Heritage Officer:

Phone: 045 980791

Fax: 045 980835

Email: heritageofficer@kildarecoco.ie

Website: <http://www.kildare.ie/county council/Heritage/index.html>

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

Photographs

Photographs used in this Plan are courtesy of Deaglán de Paor, Dr Fiona MacGowan, Suzanne Behan and Brian Gaynor.

Section 1:

Introduction

Newbridge, which was as a simple river crossing-point in the mid-17th Century, developed as a bustling garrison town in the 1800s and is today the most populous town in County Kildare. Only scattered remains of the British Army Barracks remain today, including the Town Hall on Main St. and a section of the Barrack Wall and Gateway at Athgarvan Rd, but the military connection remains a strong feature of the heritage of the town.

With a current population of over 22,000 people the town has seen significant growth in recent decades, doubling its population in the 20 years from 1991-2011. Its enterprise base has also grown over the years – from industries such as Irish Ropes, Curragh Carpets and Newbridge Silverware, to a more recent presence of the pharmaceutical industry and larger retail stores. Newbridge is now firmly established as a key regional commercial hub.

Newbridge is bounded by a wealth of natural sites and resources - from the Curragh Plains to the west, Pollardstown Fen and the Bog of Allen/Moulds Bog to the North West. The River Liffey is an integral feature of the town and St. Conleth's Bridge provides a wonderful vista of the river and the Green Flag Liffey Linear Park from the very centre of the town. Newbridge has a long history of participation in the Tidy Towns and the group have engaged in a proactive tree-planting programme throughout the town, while also working with Residents Associations and private landowners to improve the biodiversity value of the many green spaces under their management.

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 Newbridge. 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, Newbridge Tidy Towns 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 reconnaissance 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

Newbridge is nestled within a landscape rich in biodiversity starting with the River Liffey running through the centre of the town and obviously providing the need for that 'new bridge'! The riverside park along its banks provide green lungs for the busy urban town centre. The greater surrounds of Newbridge, however, feature a wonderful diversity of habitats. To the north there are acidic raised bogs, the large Mouds Bog being the best example. These bogs stretching away to the north and west from Newbridge form the well-known Bog of Allen. To the north-west then the alkaline fen at Pollardstown is the largest spring-fed fen in Ireland and its 40 calcium-rich springs are the main water sources for the Grand Canal in the form of the Milltown Feeder canal. Finally, to the south-west of the town, on the other side of the M7 Motorway lie the grasslands of the Curragh of Kildare famed in song and legend.

Newbridge is home to some of Ireland's most spectacular and important natural heritage sites such as The Curragh, Pollardstown Fen, Moud's Bog, the River Liffey and much more!



Main Biodiversity Sites

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

Site of Biodiversity Interest

River Liffey & the Liffey Linear Park: This river is famous as the river of Dublin city but before that it rises in the Wicklow Mountains and meanders its way through much of the plains of Kildare. Although not given conservation status, the Liffey is a font of biodiversity especially as it winds through the heart of the urban landscape of Newbridge town. The river and its habitats can be easily enjoyed by spending time in the wonderful Liffey Linear Park which provides an oasis of calm in the middle of bustling Newbridge as well as lots of scope for many ongoing and potential wildlife-friendly projects. These include the creation and management of native woodland and wildflower meadows, planting fruit trees, management of invasive species and the installation of information signs.



Pollardstown Fen (SAC 000396): Fens are complex ecosystems governed by very particular conditions and that is why they are uncommon and Pollardstown fen is the largest intact example left in western Europe giving it international ecological importance. It is a wild grassy place with its inaccessibility mitigated somewhat by the presence of a short boardwalk which safely allows the visitor to enjoy this ecological jewel.

Moud's Bog (SAC 002331): This bog is especially important as the largest, most easterly example of a raised bog in Ireland. Standing on the surface of this bog gives one some idea of what the expansive landscape of the now all-but disappeared Bog of Allen must have been like prior to extensive peat harvesting.

The Curragh (pNHA 000392): The Curragh of Kildare long famed in song, story and legend, is an ancient landscape, likely to have been grazed as commonage for thousands of years. It features many areas of interest for botanists and mycologists alike. The lack of fertiliser applications and its open grassy habitats have led to there being an interesting assemblage of mushroom species (fungi) in particular. Also, the grass and herb species which grow there have of course long been known for producing fantastic horses as well as sheep.



LHD Parklands: This large park set within large residential estates on the north west of the town is an important green space for the local residents. It has a large lake in the centre, which supports different species of water birds including mute swans. The surrounding grass areas have the potential to deliver much more for wildlife and the people of Newbridge through changes in the grass cutting regime and more native tree planting.

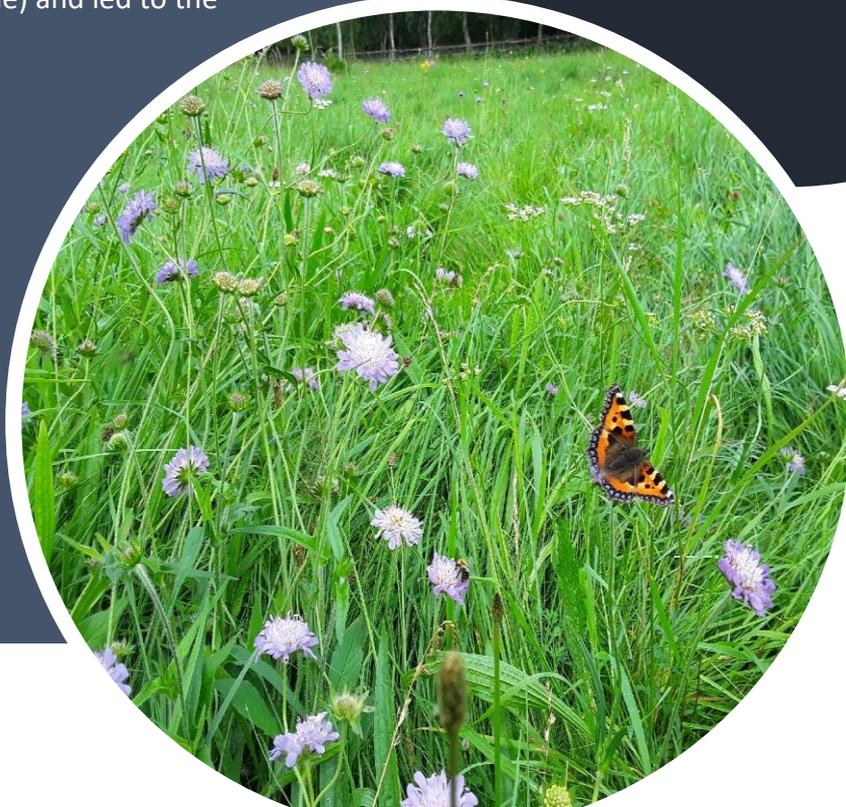
Recent Progress

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

- Newbridge Tidy Towns, in partnership with Kildare County Council, have brought the Liffey Linear Park to Green Flag standard and continue to manage the Park sensitively in order to maximise and protect its biodiversity value to the town.
- The town's annual planter programme, Newbridge in Bloom, has moved towards a more pollinator friendly plant selection in the last two years.
- A tree-planting programme is underway between Newbridge Tidy Towns and various Residents Associations throughout the town.
- A number of new perennial planting sites have been developed around the town with a focus on pollinator friendly plant choices.
- A number of free community outreach events have been held by local community groups to improve understanding and awareness of the wealth of biodiversity in the town – they include an annual Bat Walk, a Bumblebee identification workshop, guided nature walks in the Park, tours of local Swift nesting sites among more.
- A number of sites in the town centre have been left to grow, rather than mowed regularly, with pathways through encouraging locals to wander and appreciate the variety of grass and wildflowers that have appeared as a result.
- 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.



The Liffey Linear Park has been awarded a Green Flag thanks to the partnership of the local community & Council

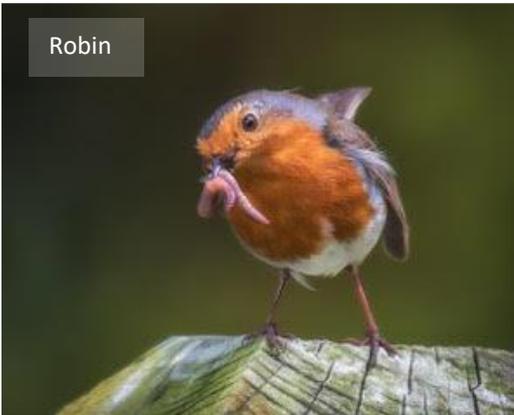


Wildlife of Kildare

Badger



Robin



Red Squirrel



Great Spotted Woodpecker



Rabbit



A collection of photos courtesy of Kildare wildlife photographer Suzanne Behan

Grey Wagtail



Red Fox



Mute Swan



Kingfisher



Section 3: A Call to Action

This is a shared plan of action for the town to build on the recent progress made to improve areas for biodiversity and to start developing other opportunities to maximise the town'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 Newbridge 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 Newbridge biodiversity friendly

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

Target 1.1 Make the town's public spaces more biodiversity friendly			
No.	Action	Who	When
1.1.1	<p>Carry out the following biodiversity habitat enhancement works within the 'Liffey Linear Park':</p> <p>A. Eradication of Himalayan Balsam - this should be carried out as part of a wider landscape approach for the River Liffey (see Action 1.3.1)</p> <p>B. Manage the wide grass verge on the western side of The Strand as a wildflower meadow. Maintain a mown fringe along the path.</p> <p>C. Create a woodland trail on the bank (under the trees) on the western side of The Strand, allowing native wildflowers such as nettle to grow. Stop the cutting of native Ivy (<i>Hedera helix</i>) that is growing on the trees. Woodland wildflower seeds and bulbs will be planted and sowed.</p> <p>D. Manage the existing wildflower meadow by cutting and lifting it each year. Plan for this at the beginning of the year. This is suitable for a Heritage Week event demonstrating traditional hand scything.</p> <p>E. Follow up on the current status of the Liffey Valley Park Plan (KCC 2011)</p>	<p>Liffey River Trust (in formation), NTT, KCC NTT, KCC NTT, KCC NTT, KCC NTT, KCC</p>	<p>2021-25 2021-22 2021 annually 2021 -25</p>
1.1.2	<p>Create a pollinator-friendly corridor or 'Bee Highway' all along the R445 from the M7 Junction 12 (Curragh) to the new roundabout at Old Connell on the Naas Road. This would include the management of grass verges, roundabouts, planters and flowerbeds and larger public green spaces /parks along the route with pollinators in mind and the promotion of the initiative. Key sites along the route that could be considered as part of the initiative include:</p> <ul style="list-style-type: none"> ● M7 Junction 12 - roundabouts and wide grass verges on approach roads to the roundabouts ● The grounds of Horse Racing Ireland (in consultation with them) ● The steep grass banks on the R445 (between the Keadeen Hotel and the Maxol Service Station) ● The grounds of the Keadeen Hotel (in consultation with the owners) ● Moore Park (in consultation with the residents) and the green space opposite the garage at the traffic junction. ● Moorefield Crescent and adjacent grass verge (in consultation with the residents and McDonalds) ● Skateboard Park ● Interested commercial businesses located either side of Military Road ● Planting containers and flower beds in the town centre ● Whitewater Shopping Centre (in consultation with the owners) ● Bord na Móna (in consultation with them) ● Town Hall ● St Conleth's Park (in consultation with Kildare GAA) ● Liffey Linear Park ● Schools ● St Conleth's Roman Catholic Church ● Pfizer and Lidl RDC (in consultation with them) ● New roundabout at Old Connell / Little Connell townlands 	<p>NTT, KCC, Private Landowners (HRI, The Keadeen, Whitewater SC, Bord na Mona, GAA, Pfizer, Lidl etc.), Newbridge Parish, Schools, environmental Non-Government Organisations (eNGOs)</p>	<p>2021-23</p>

Target 1.1 Make the town's public spaces more biodiversity friendly			
No.	Action	Who	When
1.1.3	Develop and implement a landscape masterplan for LHD Parklands and Páirc Mhuire. This plan should follow best practice green infrastructure design principles and include the creation of community friendly biodiversity habitat (e.g. wildflower meadows, community woodland, pollinator friendly flowerbeds, etc.) and natural play.	KCC	2025
1.1.4	Complete landscaping works on the sensory garden at Newbridge FRC, LHD Parklands.	Newbridge FRC	2021-23
1.1.5	Manage the lawn space behind the Town Hall as a bulb and shortcut wildflower meadow. The ground should be gently scarified and over-seeded in the autumn with an appropriate seed mix. Management of this meadow should be planned at the beginning of the year.	KCC	2021-23
1.1.6	Manage the grass on the new roundabout at Old Connell / Little Connell townlands as a wildflower meadow. The ground should be scarified and over-seeded in the autumn with an appropriate seed mix. Management of this meadow should be planned at the beginning of the year. It could be managed as part of an overall contract for meadow management across the town.	KCC	2021-23
1.1.7	Develop a planting plan for the Cemetery. Potential for low Yew hedging if trees are not a viable option. Plant native climbers (Ivy and Honeysuckle) along the southern boundary block wall of the new section of St Conleth's Cemetery.	KCC, Cemetery Committee	2021-25
1.1.8	Develop and implement a green infrastructure plan for Main Street. This would include street tree planting, green walls, rain gardens (could be a flower bed of herbaceous perennials and low shrubs) and pollinator friendly planting schemes.	KCC, NTT	2021-25
1.1.9	Maintain the pollinator friendly flower beds beside the Garda Station, Athgarvan Rd. & Piercetown.	NTT	annually
1.1.10	Manage the grassland at Moorefield Park/ Skateboard Park as a wildflower meadow. The ground should be scarified and over-seeded in the autumn with an appropriate seed mix. Management of this meadow should be planned at the beginning of the year. It could be managed as part of an overall contract for meadow management across the town.	KCC	2021-25
1.1.11	Develop natural playgrounds at selected locations across the town. Sites should be selected based on a geographic basis. Some potential sites include: Moorefield Park/Skateboard Park, LDH Parklands, Liffey Linear Park, etc.	KCC, NTT	2021-25
1.1.12	Explore the opportunity to manage the wide grass verge in front of Moorefield Crescent as a bulb and short cut meadow. Consult with McDonalds about this project.	Residents, NTT, KCC	2021-22
1.1.13	Identify a public space to develop a community herb garden.	NTT, KCC	2021-23
1.1.14	Explore the potential for a Community Garden in Newbridge	NTT	2021-25

Target 1.2 Make the town's private lands more biodiversity friendly			
No.	Action	Who	When
1.2.1	Run a 'Free Garden Tree Giveaway' each year on a Saturday morning in Feb/March. Tree mix (whips only) to include: Rowan, Birch, Hazel and Wild Cherry.	NTT, KCC	2021-25 (Feb/March)
1.2.2	<p>Explore the opportunity to carry out the following habitat and visual enhancement works in residential estates in the town:</p> <ul style="list-style-type: none"> Plant native hedgerows or climbers against internal boundary concrete walls and along the front boundaries of residential estates in the town. Manage sections of residential green spaces as wildflower meadows, either bulb, shortcut or hay meadows. For bulb meadows species such as Snowdrops, Bluebells, Crocus spp., Muscari, etc. can be planted. Create pollinator friendly planting beds by renovating existing shrub / flower beds or creating new ones at suitable locations in estates. The management of these should be taken on by the local residents. Plant copses of trees on residential green spaces and manage the grass underneath as bumblebee nesting habitat (left uncut). Plant bulbs and wildflowers into these areas to add colour and increase the biodiversity value. Install bird and bat boxes at suitable locations. Where possible create a wildlife pond. Secure with fencing if necessary. <p>Target 1-2 residential estates each year of the Action Plan to work with (all actions should be agreed with the residents). In Year 1, engage with estates that have taken part in the process of developing this plan such as The Seven Springs (see Action 1.2.4) and Moorefield Crescent (see Action 1.2.3). These can then act as 'champions' within the town for other estates in subsequent years.</p>	Residents, NTT, KCC	2021-25
1.2.3	<p>Explore the opportunity to carry out the following habitat enhancement works at Moorefield Crescent (all actions should be agreed with the residents):</p> <p>A. Manage a strip of the green along the pedestrian path and under the trees as a bulb and short cut meadow.</p> <p>B. Consider removing part of the hedgerow beside the bus shelter to deter anti-social behaviour</p>	Residents, NTT, KCC Residents, NTT, KCC	2021 2021
1.2.4	<p>Explore the opportunity to carry out the following biodiversity habitat enhancement works at The Seven Springs estate (all actions should be agreed with the residents):</p> <p>A. Identify and manage a section of the lawn near the entrance to the estate to be managed as a spring bulb meadow. This could include species such as Snowdrops, Bluebells, Crocus spp., Muscari, etc.</p> <p>B. Plant a native hedgerow with some edible species along the boundary wall with Standhouse Lawns. Carry out selective removal of conifers along the length to allow for the hedgerow.</p> <p>C. Re-work the shrub bed at the entrance to create a more pollinator friendly planting mix.</p>	Residents, NTT, KCC Residents, NTT, KCC Residents, NTT, KCC	2021 2021-22 2021
1.2.5	<p>Explore the opportunities with the housing estates adjoining the Liffey (Old Connell Weir, Riverside Park, & River Court) about enhancing the green spaces beside the river. This can include more tree planting and managing the grass as wildflower meadow.</p> <p>(See also Liffey Valley Park Plan (KCC 2011) Map Liffey Valley Park A3 Tankardstown to Newbridge College)</p>	Residents, NTT, KCC	2021-25

Target 1.2 Make the town's private lands more biodiversity friendly			
No.	Action	Who	When
1.2.6	Explore the opportunity to augment the strip of daffodils along the roadside on the green of Moore Park with pollinator friendly bulbs such as Snowdrops, Bluebells, Crocus spp., Muscari, etc. This will also increase the flower season and add visual interest. Consider managing this strip as a shortcut meadow during the summer months. (all actions should be agreed with the residents)	Residents, NTT, KCC	2021-23
1.2.7	Explore the opportunities for biodiversity enhancement features to be incorporated into the redevelopment of St Conleth's GAA Park. These can include Swift boxes, pollinator friendly flower beds and biodiversity signage.	NTT consult with Kildare GAA	2021-23
1.2.8	Explore the opportunity with Bord na Móna to enhance the two large lawn areas within their headquarters for biodiversity. This can include the planting of native trees and traditional Irish varieties of fruit trees, and the creation of shortcut wildflower meadows.	NTT consult with Bord na Móna	2021-23
1.2.9	Explore the opportunity with Ballymany Stud to manage the grass verge at the entrance to their property as a spring bulb and short cut wildflower meadow.	NTT consult with Ballymany Stud	2021-23
1.2.10	Maximise the potential of National School campuses for outdoor learning and biodiversity including the following: <ul style="list-style-type: none"> ● Develop dedicated wildlife gardens / outdoor learning classroom spaces around the grounds. ● Manage sections of lawn space as wildflower meadows including spring bulbs. ● Plant native trees and hedgerows along the boundaries and where space allows. ● Install habitat boxes such as Swift boxes at suitable locations on the buildings. ● Include signage, made by school pupils as classroom activities. 	NTT will explore with school boards of management	2021-25
1.2.11	Maximise the potential of Secondary School campuses for outdoor learning and biodiversity including the following: <ul style="list-style-type: none"> ● Develop dedicated wildlife gardens / outdoor learning classroom spaces around the grounds. ● Manage sections of lawn space as wildflower meadows including spring bulbs. ● Plant native trees and hedgerows along the boundaries and where space allows. ● Install habitat boxes such as Swift boxes at suitable locations on the buildings. ● Include signage, made by school pupils as classroom activities. 	NTT will explore with school boards of management	2021-25
1.2.12	Explore the opportunity to manage the front lawn of the Newbridge Parish Centre as a short cut wildflower meadow.	NTT consult with Newbridge Parish	2021-23
1.2.13	Explore the opportunity to manage the front lawn of the St Conleth's Parish Church as a bulb and short cut wildflower meadow.	NTT consult with Newbridge Parish	2021-23

Target 1.3 Make the town's surrounding lands more biodiversity friendly			
No.	Action	Who	When
1.3.1	Participate in a Himalayan Balsam control project for the River Liffey catchment area. The study should include other Invasive Species recorded.	NTT will explore this with neighbouring towns, KCC, & other stakeholders	2021-25
1.3.2	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.	NTT and Kildare Heritage Office to liaise with IFA and Horse Racing Ireland	2021-25
1.3.3	Contact NPWS to explore the possibility of extending the boardwalk from Pollardstown Fen to the Milltown Feeder	NTT liaise with NPWS Kildare Office	2021-25

Target 1.4 Deliver species-specific conservation projects			
No.	Action	Who	When
1.4.1	Promote the town as a 'Swift Town' 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 Wild Kildare who require local people to help monitor population numbers.	NTT, local eNGOs, Residents, KCC Patrician Secondary School, Scoil Na Naomh Uilig	2021-23
1.4.2	Create additional nesting opportunities for Bats and raise awareness of their habitats – protected species. This could be delivered in partnership with Kildare Bat Group.	NTT, Selected eNGOs, Residents	2021-23
1.4.3	Run a hedgehog conservation project by developing hedgehog corridors throughout the town, focusing on residential gardens, and raising awareness of it and other urban wildlife.	NTT, Selected eNGOs, Residents, KCC	2021-25

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 2-3no. interpretation posts at selected locations in the 'Liffey Linear Park'. Topics can include: nettles and butterflies, wildflower meadows, woodland plants and animals, bird life and local cultural and built heritage.	NTT, KCC	2021-22
2.1.2	Explore the potential for a series of urban looped walks around the town connecting various sites of natural, built and cultural heritage. Any trail should include interpretation of local biodiversity. Erect a central sign about the Heritage trail.	NTT, Residents, KCC	2021-25
2.1.3	Run a minimum of 2 wildlife-related events (e.g. walks, talks, workshops) each year. This should use the results of the questionnaire in the back of this Plan as a guide for topics of interest and how to deliver them during Covid 19. These can be delivered as Newbridge-only events or in partnership with other neighbouring communities where appropriate.	NTT, Selected eNGOs, KCC, Michael Jacob etc,	2021-25 (time of year is dependent on each specific event - use Biodiversity Week, Heritage Week, Culture Night etc.)
2.1.4	Use vacant shop fronts on Main Street to display / interpret the local natural, built and cultural heritage of Newbridge.	NTT	2021
2.1.5	Continue to use local social media to raise awareness of local biodiversity and conservation issues.	NTT, KCC	Ongoing
2.1.6	Explore the opportunity to run a public open day of the meadows in Pfizer and / or the Lidl RDC.	NTT to make contact	2021
2.1.7	Promote and create awareness of the wealth of conservation sites, both of national and international importance, that surround Newbridge.	NTT to liaise with the NPWS Kildare Office & the KCC Heritage Officer	Ongoing

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	NTT, KCC Green Schools Officer, Parents	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.	NTT, KCC Green Schools Officer, Parents	2021-25
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.	NTT, KCC Green Schools Officer, Parents	2021-23
2.2.4	Develop interpretive signage / written materials / maps targeting the schools use the Liffey Linear Park for nature & fitness activities.	NTT, KCC, Heritage Office.	2021-23

Target 2.3 Provide clear information to different sectors within the community on how they can take actions to enhance their spaces for biodiversity

No.	Action	Who	When
2.3.1	Run 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.	NTT, Kildare TT Network, KCC	2021-22
2.3.2	Participate in, and if necessary, help organise, a series of county-wide farm 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.	Collective of Co. Kildare groups with Kildare Heritage Office	2021-25
2.3.3	Engage with, and support, the different sectors within the community such as the sporting organisations, industrial estates, businesses, faith communities, schools, etc. about the use of green infrastructure and biodiversity enhancement features as a means of delivering on their needs. Raise awareness of the resources available such as the All-Ireland Pollinator Plan guides for each sector e.g. they have a guide specifically for Golf Courses and the GAA are setting up a Green Club project.	NTT with the support of the wider Biodiversity Action Plan (BAP) group consisting of representatives from different stakeholders across the town	2021-25
2.3.4	Develop an Estate Mentoring Scheme for residential committees on how they can enhance biodiversity in their estates. This would be similar to the scheme run by Ennis Tidy Towns. (http://ennistidytowns.com/project/estate-mentoring-programme/). Develop a list of 'champions' from residential estates who have delivered actions that improve their estates for residents and biodiversity who can support other interested residential groups.	NTT	2021-23
2.3.5	Post links to the All-Ireland Pollinator Plan guides on social media each year.		2021-25
2.3.6	Implement a policy of no Invasive plant species in new planting schemes in the town.	KCC	2021-25
2.3.7	Engage with Kildare County Council to ensure that all new developments in the town incorporate best practice green infrastructure design principles (e.g. use of bioswales) and biodiversity features (e.g. Swift bricks, see Action 1.4.1). NTT to make submission to Newbridge Area Plan and County Development Plan when it's up for review. Green infrastructure design should ideally be done at the planning and design stage. Where plans have developed beyond planning, engage with the developers about the benefits that green infrastructure design can deliver for them.	NTT, KCC	2021-25
2.3.8	Support Pfizer and Lidl RDC with the development and implementation of a management plan for their wildflower meadows. Also advise on the best placement of bird boxes on their grounds.	NTT, KCC, local eNGOs	2021-23
2.3.9	Engage with Horse Racing Ireland and the stud farms about maximising the biodiversity value of their grounds in line with their activities.	NTT, KCC	2021-23

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 the Swift population numbers in the town annually and the uptake of newly installed Swift boxes.	Local eNGOs, NTT, Residents	ongoing
3.1.2	Facilitate Wild Kildare's 'Moth Atlas' for the county	Residents, NTT	ongoing
3.1.3	Develop at least 2 bumblebee transects in the town and submit records to the National Biodiversity Data Centre (NBDC)	Residents, NTT	2021-23
3.1.4	Develop at least 2 butterfly transects in the town and submit records to the NBDC	Residents, NTT	2021-23
3.1.5	Develop a green infrastructure map of the town that identifies the various green spaces and biodiversity features within the town. This will identify existing ecological corridors, and any gaps, that will help guide future planning and development.	NTT, KCC	2021-25
3.1.6	Carry out a tree survey of the town.	NTT, KCC	2021-23
3.1.7	Record all biodiversity records onto the NBDC. Encourage other members of the community to do likewise.	Residents, NTT	ongoing
3.1.8	Record and map all biodiversity actions delivered at: https://pollinators.biodiversityireland.ie/	NTT	ongoing

Target 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.	BAP Steering Committee (NTT, wider community, KCC)	2021
3.2.2	The sub-committee shall carry out an annual review of the Action Plan.	BAP Steering Committee	2021, 2022 & 2024
3.2.3	Carry out a more detailed mid-term review of the Action Plan.	BAP Steering Committee	2023
3.2.4	Carry out a full detailed review of the Action Plan in the final year.	BAP Steering Committee	Summer 2025
3.2.5	Plan for the updating / renewing of a subsequent 5-year plan to run from 2026-2030.	BAP Steering Committee & County Kildare LEADER Partnership	2025

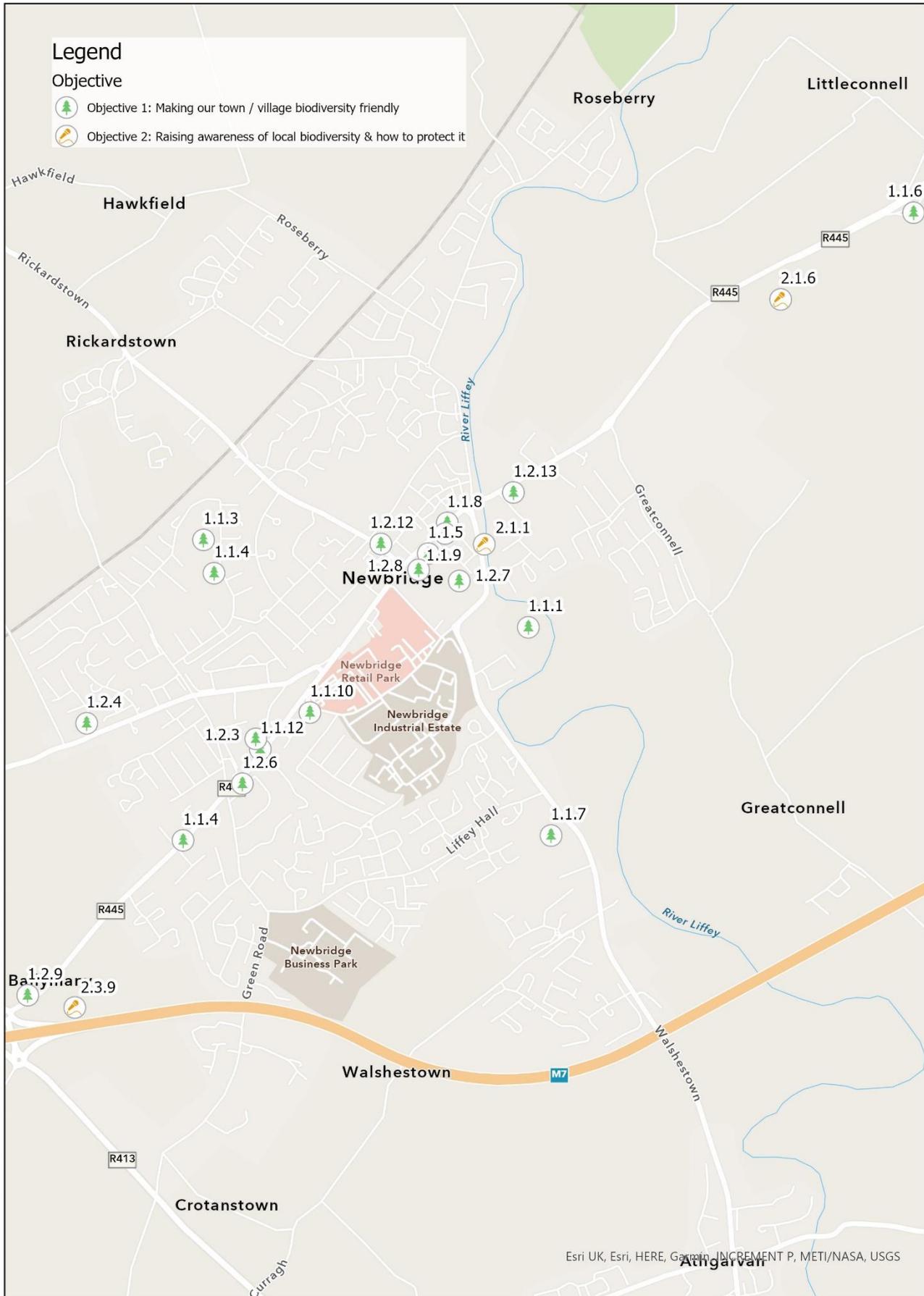
Objective 4: Build local capacity to manage & record biodiversity

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 4.1 Build the capacity within the community to manage and record biodiversity			
No.	Action	Who	When
4.1.1	Identify all wildlife groups active in Newbridge and make contact and offer help / partner on local projects.	BAP Steering Committee	2021-23
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 & country (i.e. certified native seed or tree suppliers)	Kildare TT Network	Ongoing
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)	BAP Steering Committee	2021
4.1.4	Hold an event to communicate this BAP to the local community. Make contact with all the Newbridge groups and individuals who attended the launch in Newbridge Town Hall in February 2020.	NTT	2021
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.	KCC, NTT	2021

Target 4.2 Build up local resources of materials and equipment to manage and record biodiversity			
No.	Action	Who	When
4.2.1	Install a community polytunnel at a secure location. 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.	Local gardening club, NTT	2021-25
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.	NTT will explore this with neighbouring towns and KCC Parks	2021
4.2.3	Build-up stock of biodiversity educational resources. Liaise with the local library.	NTT, Newbridge Library, KCC	2021
4.2.4	Build up a stock of biodiversity recording equipment such as bat detectors, moth traps, etc.	NTT, Newbridge Library, KCC, Local eNGOs	2021-23

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	<ul style="list-style-type: none"> • https://www.batconservationireland.org/ • https://kildarebatgroup.wordpress.com/
Birdwatching	<ul style="list-style-type: none"> • http://www.birdwatchkildare.com/?page_id=23 • https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/ • www.irishbirding.com
Children's Biodiversity Activities	<ul style="list-style-type: none"> • https://birdwatchireland.ie/our-work/fun-learning/for-kids/ • https://www.woodlandtrust.org.uk/blog/2020/03/kids-nature-activities-self-isolation/ • https://www.rspb.org.uk/fun-and-learning/
General Biodiversity Issues	<ul style="list-style-type: none"> • https://www.biodiversityireland.ie/ • www.npws.ie
Habitat Boxes	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-3-FINAL-1.pdf • https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf • https://63273-649646-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf • https://mosart.ie/wp-content/uploads/2016/02/Irish-Hedgerows-Networks-for-Nature.pdf • www.hedgelaying.ie
Interpretative Signage	<ul style="list-style-type: none"> • https://www.nature.scot/sites/default/files/2019-11/Guidance%20-%20Natural%20heritage%20interpretation_1.pdf • https://www.heritagecouncil.ie/content/files/bored_of_boards_1mb.pdf • https://pollinators.ie/resources/signage-templates/
Invasive Alien Species	<ul style="list-style-type: none"> • https://invasivespeciesireland.com/ • https://www.fisheriesireland.ie/Invasive-Species/invasive-species.html
Local Biodiversity News	<ul style="list-style-type: none"> • https://www.facebook.com/Wild-Kildare-1437313092971392/ • http://www.birdwatchkildare.com/ • https://kildarebatgroup.wordpress.com/ • http://www.kildare.ie/CountyCouncil/Heritage/Biodiversity/
Nature Trails	<ul style="list-style-type: none"> • http://www.walkingroutes.ie/WalkingTrails/Kildare
Orchards	<ul style="list-style-type: none"> • http://www.irishseedsavers.ie/blog/wp-content/uploads/2014/10/CreatingAnOrchard.pdf • https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11466/1973262.pdf • http://www.wetlandsystems.ie/goephow.html • https://www.theorchardproject.org.uk/
Peatlands	<ul style="list-style-type: none"> • www.ipcc.ie • www.bordnamona.ie/transform/biodiversity • www.abbeyleixbog.ie
Pollinator Friendly Planting Schemes	<ul style="list-style-type: none"> • https://pollinators.ie/resources/ • https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf • www.rhs.org.uk
Pollinators	<ul style="list-style-type: none"> • https://pollinators.ie/
Recording Biodiversity	<ul style="list-style-type: none"> • https://www.biodiversityireland.ie/record-biodiversity/
Reducing Herbicide Use	<ul style="list-style-type: none"> • https://greensideup.ie/16-natural-alternatives-to-herbicide-why-you-should-use-them/
Schools & Biodiversity	<ul style="list-style-type: none"> • https://greenschoolsireland.org/biodiversity/ • https://pollinators.ie/schools/ • http://www.heritageinschools.ie/teachers-resources/strand/living-things-science/p3?q=&c=

Subject	Link(s)
	<ul style="list-style-type: none"> • https://www.eckilkenny.ie/images/Biodiversity_Plan_for_Schools.pdf • http://www.heartoftheglens.org/cms/wp-content/uploads/2017/12/Teachers-Outdoor-Learning-Resource.pdf • http://www.ipcc.ie/discover-and-learn/resources/
Swifts	<ul style="list-style-type: none"> • https://birdwatchireland.ie/our-work/surveys-research/research-surveys/swift-surveys/ • www.swiftconservation.ie/
Tree Identification & Selection	<ul style="list-style-type: none"> • https://www.treecouncil.ie/nativeirishtrees • https://drive.google.com/file/d/0B-qemRFHRDRSVnh3bmxGOEVaMHc/edit • http://www.clarecoco.ie/services/planning/publications/tree-design-guide-for-towns-and-villages-in-co-clare-2017-28115.pdf
Wildflower Meadows	<ul style="list-style-type: none"> • https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf
Wildflowers	<ul style="list-style-type: none"> • http://www.wildflowersofireland.net/index.php • www.bsbi.org
Wildlife Ponds	<ul style="list-style-type: none"> • https://www.wildlifetrusts.org/actions/how-build-pond • https://invasivespeciesireland.com/wp-content/uploads/2017/10/AQUATICS_BOOK5.pdf
Woodland	<ul style="list-style-type: none"> • http://www.woodlandsofireland.com/sites/default/files/Management%20Guidelines%20for%20Ireland%27s%20Native%20Woodlands%202017.pdf • https://www.forestryfocus.ie/social-environmental-aspects/biodiversity-and-nature-conservation/biodiversity-in-forests/conservation-and-restoration/ • http://www.woodlandsofireland.com/sites/default/files/Silvicultural%20Guidelines%20for%20Native%20Trees.pdf • https://www.wildlifetrusts.org/wildlife-advice/how-manage-woodland-wildlife

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 info@countykildarelp.ie . Website: www.countykildarelp.ie/
Kildare County Council	For additional information in relation to funding for biodiversity and heritage projects, contact the Heritage Officer - Tel. 045 980791 or email heritageofficer@kildarecoco.ie
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. https://www.agriculture.gov.ie/media/migration/forestry/grantandpremiumschemes/2015/NeighbourWoodScheme240717.pdf

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

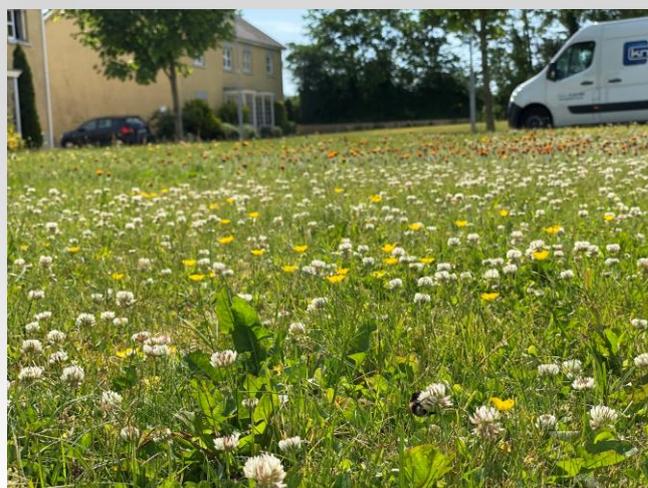
Hay Meadows:

- 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.
- Control listed noxious weeds.



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
	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: <https://www.treesontheland.com/planting-guide>

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: <https://pollinators.ie/>



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
<ul style="list-style-type: none"> • Japanese anemones (<i>Anemone</i> x hybrid) – pink and white (autumn); • Verbena bonariensis (late summer); • Foxgloves (<i>Digitalis</i> spp) (early summer) – both pink and white varieties; • Mullein (<i>Verbascum</i> spp) (summer); • Fennel (<i>Foeniculum vulgare</i>); • Teasel (<i>Dipsacus</i> sp.) - Goldfinches love their seeds in winter. • Some Rudbeckia daisies will add bold colour too. 	<ul style="list-style-type: none"> • 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>Aquilegia</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 (<i>Alchemilla mollis</i>): attractive green flowers and leaves that flop over bed edges.
<p>Also consider:</p> <ul style="list-style-type: none"> • 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 (*Crataegus monogyna*)

Smaller percentages of the following species:

- Elder (*Sambucus nigra*)
- Blackthorn (*Prunus spinosa*)
- Hazel (*Corylus avellana*)
- Holly (*Ilex aquifolium*)
- Privet (*Ligustrum vulgare*)
- Spindle (*Euonymus europaeus*)
- Guelder rose (*Viburnum opulus*)
- Dog rose (*Rosa canina*)

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

- 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

Pollinator-friendly trees and shrubs recommended for community / garden flowerbeds

Wildlife-friendly tree species	Wildlife-friendly shrub species
<ul style="list-style-type: none"> • Pedunculate oak (<i>Quercus robur</i>) – prefers neutral/limestone soils • Sessile oak (<i>Quercus petraea</i>) – prefers slightly acid soils • Willow (<i>Salix</i> spp) – good for damp/waterside conditions • Hazel (<i>Corylus avellana</i>) – likes neutral to limey soils • Alder (<i>Alnus glutinosa</i>)– good for damp/waterside conditions • Aspen (<i>Populus tremula</i>) • Silver birch (<i>Betula pendula</i>) • Downy birch (<i>Betula pubescens</i>) - good for damp/ waterside conditions • Yew (<i>Taxus baccata</i>) – note that ‘fastigiata’ is the upright form (Irish Yew) • Holly (<i>Ilex aquifolium</i>) • Rowan / Mountain ash (<i>Sorbus aucuparia</i>) – flowers and fruit for spring and autumn interest • Whitebeam (<i>Sorbus aria</i>) – flowers and fruit for spring and autumn interest • Crab apple (<i>Malus sylvestris</i>) – flowers and fruit for spring and autumn interest • Wild cherry (<i>Prunus avium</i>) – flowers in spring and colourful fruit and leaves in autumn 	<ul style="list-style-type: none"> • Fruit bushes e.g. the native Raspberry (<i>Rubus idaeus</i>) and Blackberry (<i>Rubus fruticosus</i>). Also Currants and Gooseberries (<i>Ribes</i> spp.). • Ling heather (<i>Calluna vulgaris</i>) - prefers acid/peaty soil conditions • Bell heather (<i>Erica cinerea</i>) - prefers acid/peaty soil conditions • Broom (<i>Cytisus scoparius</i>) terrific colour, blooming through April & May. • Firethorn (<i>Pyracantha</i>)* - a very thorny climber, good for wall cover with creamy blossoms in summer and colourful berries in autumn. Different species have different coloured berries ranging from yellow through orange to scarlet red. • Honeysuckle/Woodbine (<i>Lonicera periclymenum</i>) – a climber with beautifully scented flowers, particularly in the evening when they attract nectar-seeking moths. • Dog rose (<i>Rosa canina</i>) – a climber with beautiful flowers in June and red rosehips in autumn. • Elder (<i>Sambucus nigra</i>) – creamy flowers (most important ingredient in a very tasty cordial!) in June and black berries in autumn (only edible when cooked, great for jams and jellies) • Spindle tree (<i>Euonymus europaeus</i>) – strikingly beautiful orange seeds carried in bright pink capsules called ‘cardinals’ hats’ • Blackthorn (<i>Prunus spinosa</i>) – featuring sloe berries in autumn • Purging Buckthorn (<i>Rhamnus catharticus</i>) – an uncommon shrub – the favourite food plant of the Brimstone butterfly • Alder-buckthorn (<i>Frangula alnus</i>) – a rare native also favoured by the Brimstone butterfly. • Privet (<i>Ligustrum vulgare</i>) • Guelder rose (<i>Viburnum opulus</i>) – beautiful flowers and berries. • Gorse (<i>Ulex europaeus</i>) – the heady, coconut aroma of its bright yellow flowers is the smell of an Irish summer’s day.

*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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 Terrestrial Plant IAS	
Himalayan Balsam (<i>Impatiens glandulifera</i>)	<ul style="list-style-type: none"> • Can dominate riverbanks and outcompete native flora
Japanese knotweed (<i>Fallopia japonica</i>)	<ul style="list-style-type: none"> • Can dominate riverbanks and outcompete native flora • Can negatively impact built structures
Giant Hogweed (<i>Heracleum mantegazzianum</i>)	<ul style="list-style-type: none"> • Can dominate riverbanks and outcompete native flora • Can cause serious skin burns to humans
Giant Rhubarb (<i>Gunnera tinctoria</i>)	<ul style="list-style-type: none"> • Can dominate riverbanks and outcompete native flora
Monbretia (<i>Crocsmia</i> spp.)	<ul style="list-style-type: none"> • Can dominate grassy areas and outcompete native ground flora
Spanish Bluebell (<i>Hyacinthoides hispanica</i> and hybrids)	<ul style="list-style-type: none"> • They hybridize with native Bluebells
Cherry laurel (<i>Prunus laurocerasus</i>)	<ul style="list-style-type: none"> • Can take over woodland and prevent native ground flora & saplings from growing.
<i>Rhododendron ponticum</i>	<ul style="list-style-type: none"> • Can take over woodland and prevent native ground flora & saplings from growing.
Pheasant Berry (<i>Leycesteria Formosa</i>)	<ul style="list-style-type: none"> • Can take over native woodland and prevent native ground flora & saplings from growing.
Some of the Common Aquatic Plant IAS	
Floating pennywort (<i>Hydrocotyle ranunculoides</i>)	<ul style="list-style-type: none"> • 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>)	<ul style="list-style-type: none"> • 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 (<i>Myriophyllum aquaticum</i> , <i>Myriophyllum brasiliense</i> , <i>Myriophyllum proserpinacoides</i>)	<ul style="list-style-type: none"> • Can produce a thick raft of vegetation. • A fragment as small as 5mm can re-grow. • Poses a threat to plants & fish by blocking out light & reducing oxygen levels. • Can choke waterways so increasing the risk of flooding.
New Zealand pigmyweed (<i>Crassula helmsii</i>)	<ul style="list-style-type: none"> • Can regenerate from tiny fragments & therefore easily takes over new areas. • Forms very dense mats which overgrow native plants and reduces light levels.
Water primrose (<i>Ludwigia grandiflora</i>)	<ul style="list-style-type: none"> • Currently only recorded from one site in Ireland. • Grows into a thick carpet which can out-grow native species and clog waterways.
Water fern (<i>Azolla filiculoides</i>)	<ul style="list-style-type: none"> • 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 Meadows		
Polytunnel	It is useful to have at least one community polytunnel to grow wildflower plugs from locally harvested seed that can then be planted out into local public meadows. It is ideally located in a secure place where a 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: <ul style="list-style-type: none"> • 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 Habitat 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



A biodiversity sign, useful on sites with lots of natural interest.



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.

Wildflower Meadows



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.

Pollinator Beds



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



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.



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 Woodlands



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.



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

Greening the Grey



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.



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 biodiversity-related 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 (Newbridge Responses Only).

The responses listed a range of different ecosystem services that benefit the town. The most commonly listed benefit was that habitat creation boosts local species of wildlife such as birds and pollinators. The responses also recognised the multiple benefits economic and tourism benefits associated with nature and biodiversity, as well as the benefits for quality of life and for helping to tackle climate change.

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

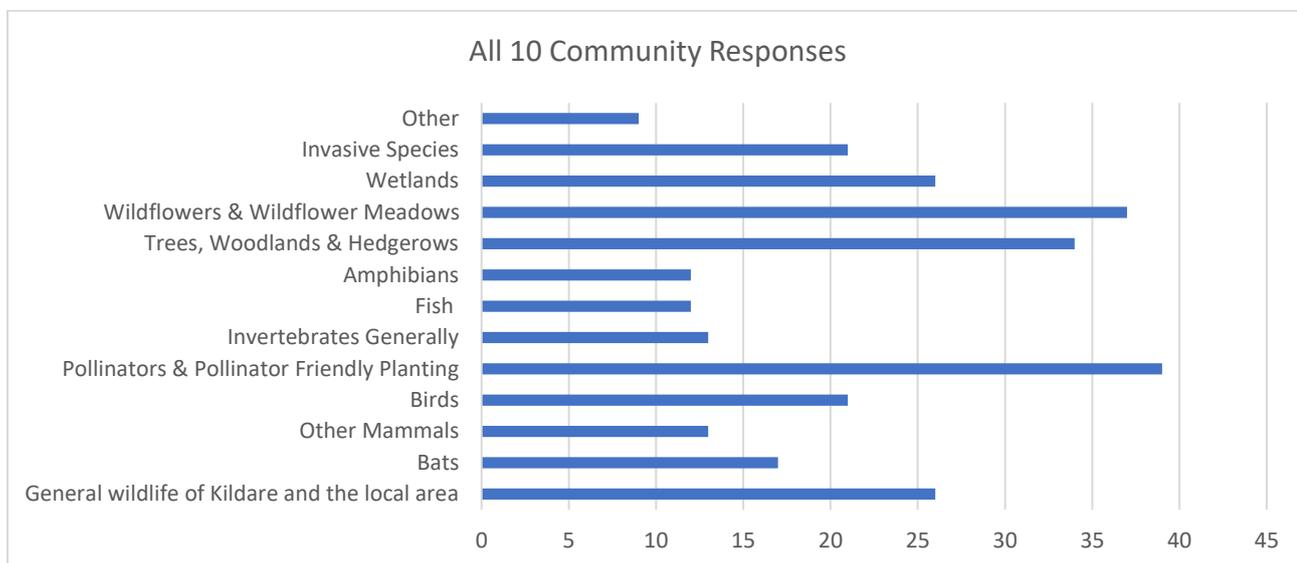
The responses highlight a range of sites both in the town and in the surrounding landscape that are seen as important for biodiversity. The biodiversity hotspots that were mentioned by most Newbridge respondents were the River Liffey and the Linear Park, Pollardstown Fen, the Curragh and Mouds Bog. Private gardens and residential green spaces were also recognised as being an important part of the biodiversity infrastructure of the town. Two other sites – the Strand and Hawkfield Bog - were also listed as part of the responses.

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

The majority of respondents stated that they would be interested in getting involved in helping biodiversity in Newbridge, with nobody stating that they wouldn't be interested. The main ways that the respondents stated that they would like to get involved included helping to enhance their own residential estate green spaces, recording biodiversity (Citizen Science), helping to run events, tree planting, and helping to create and manage wildflower meadows and pollinator-friendly flowerbeds.

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)

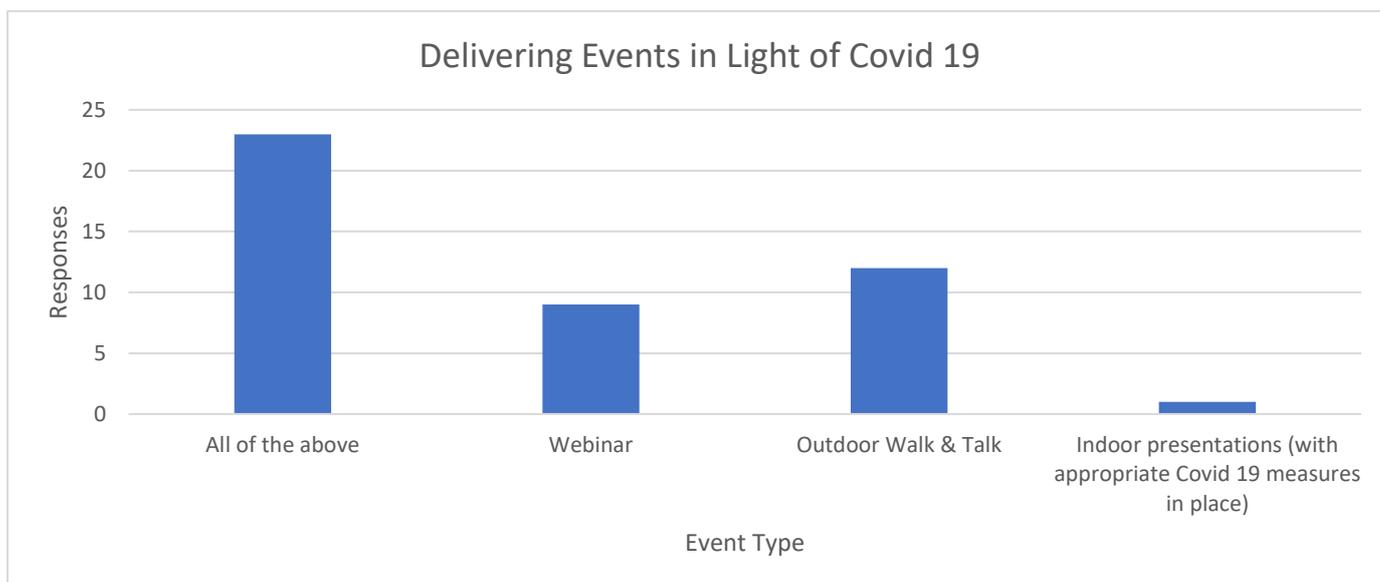
Events related to pollinators and pollinator-friendly planting, wildflowers and wildflower meadows, and trees, woodlands and hedgerows were the most popular responses with each of these receiving over 30 mentions each. Events about general wildlife of Kildare, invasive species, birds and wetlands were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



There were three events listed under the 'Other' category and they were events about the Curragh, climate change and habitat management, and training on identification of solitary bees and hoverflies.

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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