

# Ballymore Eustace

## Biodiversity Action Plan 2021-25



The European  
Agricultural Fund for  
Rural Development:  
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2020

LEADER is funded by the Irish Government through the Department of Rural and Community Development

Plan produced by:

Green Pine Consultants 



Dr Fiona Mac Gowan, Consultant Ecologist & Botanist

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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 Ballymore Eustace Tidy Towns for nominating Ballymore Eustace 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:

Ballymore Eustace Tidy Towns

or

Kildare County Council Heritage Officer:

Phone: 045 980791

Fax: 045 980835

Email: [heritageofficer@kildarecoco.ie](mailto: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](mailto:info@countykildarelp.ie) 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 members of Ballymore Eustace Tidy Towns, Dr Fiona MacGowan, Suzanne Behan and Brian Gaynor.

# Section 1:

## Introduction

Ballymore was a manor owned by the archbishops of Dublin during the later mediaeval period. They held a castle here in the late 12th century. In 1244 the right to hold fairs and markets was confirmed to the archbishops by King Henry 111, indicating a substantial settlement existed. The importance of Ballymore is emphasised by the fact that Parliament was held here in 1380. In 1373 the archbishop appointed Thomas FitzOliver FitzEustace constable of the castle. His family came to be associated with the town, hence its present name Ballymore Eustace or *Baile Mór na nlústasach* ("big or great town of the Eustaces"). It is now a small town in County Kildare. Until 1836 it lay within an exclave (a detached "pocket" owned by the archbishops) of County Dublin. The present town grew up around the Old Woollen Mill built by Christopher Drumgollee in 1802, on a former corn mill site. Powered by the Liffey, it employed 700 workers.

The town is located on the River Liffey. The largest WTP in Ireland is located here. It provides drinking water to over a million customers in Kildare and Dublin. There are two hydroelectricity stations. The Liffey is a hugely important habitat for wildlife. It links the town with the wider countryside and forms an important biodiversity corridor.

Ballymore Eustace participates in Tidy Towns competitions. Achieved bronze medals in 2017, silver 2018 and bronze 2019. Regional winner of the 2018 Waters and Community Award. Ballymore Eustace was runner-up (beaten by a point) in the 2019 All-Ireland Best Kept Towns Competition, a great credit to the people of the town and a reflection of the town's community spirit.

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 Ballymore Eustace. 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, Ballymore Eustace 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

Ballymore Eustace is located on the River Liffey just as it leaves Poulaphouca Reservoir/Golden Falls Lake. The Reservoir/Lake were formed as part of the Liffey Scheme to harness the waters of the Liffey and Kings Rivers for electricity generation and a drinking water supply for Dublin (Liffey Reservoir Act 1936). The town is surrounded by farmland but with many examples of mature native deciduous oak and ash along the Liffey including the Liffey Meander Belt. Please note that further details on your local conservation sites can be found at: [www.npws.ie/protected-sites/](http://www.npws.ie/protected-sites/)

Ballymore Eustace is blessed with several sites of natural heritage importance associated with the River Liffey including Poulaphouca Reservoir, Poulaphouca Gorge, and the Liffey Meander Belt.



# Main Biodiversity Sites

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

## Site of Biodiversity Interest

**River Liffey and Riverside Walk:** 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 Kildare countryside. A community walk has been developed along the river as it runs through the village. This stretch has many fine examples of mature trees, shrubs and ground flora which support an abundance of wildlife. There are also areas of wildflower meadow and ornamental flower beds maintained by the local community.



**Kimmeens Wildflower Meadow:** This wildflower meadow is located on the R411 road embankment on the approach to the village. It is being managed by the local community as a hay meadow. Meadows such as this are vital in the efforts to conserve native pollinators across the country.

**Poulaphouca Reservoir (SPA 004063):** This is an artificial lake created in 1944 to create a hydro-electrical power source. It was created using both the Kings River and the River Liffey. Nature has taken to this large body of water ever since and it is now a Special Protection Area for the protection of Greylag geese and Lesser black-backed gulls.

**Tufa Petrifying Spring:** This special habitat is adjacent to and traversed by the community walk which includes an approved section of boardwalk that was installed over the Spring. A cursory survey suggests that this is an excellent example of a tufa spring i.e. a spring of calcium-rich water that can petrify (cover in a calcium coat similar to limescale) the plants growing around it hence its other name 'petrifying springs'. The bryophyte (moss and liverwort) flora is dominated by *Palustriella* species, such as *Palustriella commutate* and *P. falcata*. Other flora very typical of this habitat also occur. This habitat is listed as a Priority Habitat under Annex I of the E.U. Habitats Directive and therefore can be afforded the strictest of protection. Good examples of these Annex I Priority Habitats are of international conservation importance.



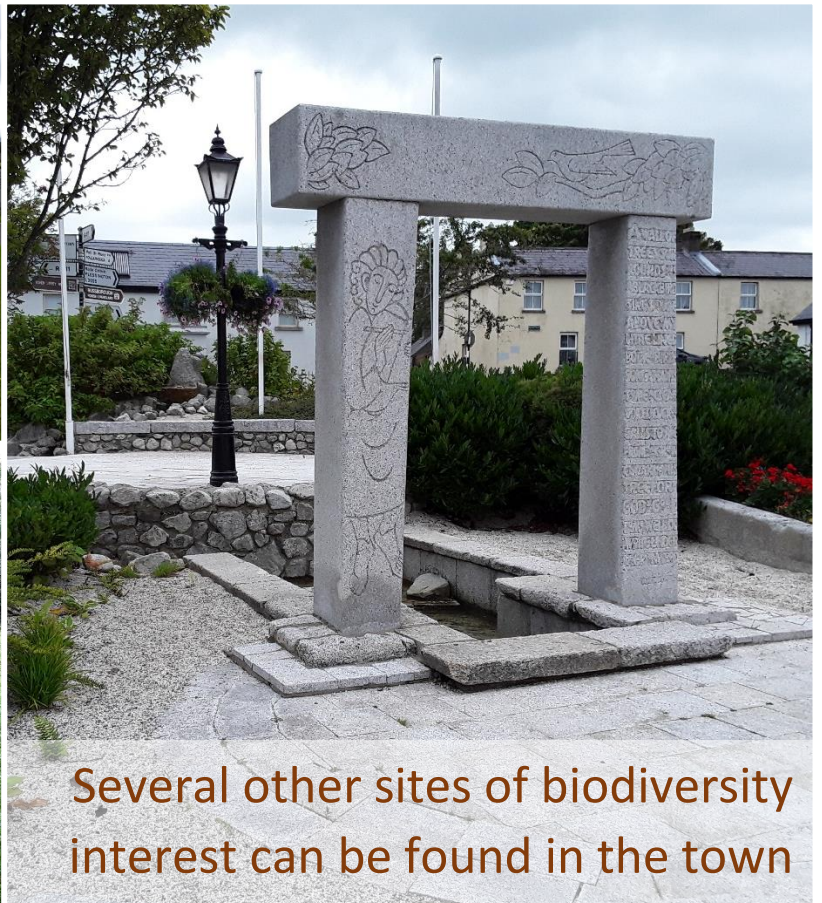
## Site of Biodiversity Interest

**Newtown Marshes (pNHA 001759):** According to the NPWS site synopsis for this site, it: 'consists of a series of marshes and ponds within an area of calcareous eskers. The wetlands vary from areas of permanent open water to damp rush-dominated hollows. Wet grassland occurs around some of the pools and marshes. The area is of interest ornithologically as it holds a breeding colony of Black-headed Gulls. Apart from the ecological interests, this site is of interest for geomorphological reasons. Areas of freshwater marsh are now scarce in this part of the country.'

**Liffey Valley Meander Belt (pNHA 000393):** A small belt of Ash woodland along the banks of the River Liffey just 1km northwest of Ballymore Eustace. This area is a small remnant of what would have been the dominant type of native woodland to this part of Co. Kildare. The woodland merges with flood meadow habitat along the river featuring Meadowsweet and Flag iris giving an idea of habitat types that would have been far more extensive in the past.

**Area of Species Rich Wet Grassland:** This is a small marsh located between a steeply sloped wooded embankment and a small area of intensive grassland in a field to the south of the Liffey Bridge. The surface is wet and it is species rich. A central strip of dry grassland supports species such as pignut.

This site was identified as part of the 2014 Kildare Wetland Survey III. This involved a field survey of the outstanding fifty freshwater wetlands in County Kildare, with the aim of identifying the specific wetlands and ecological interest of each. The 2014 survey completed the 3-year wetland survey project, funded by Kildare County Council and Heritage Council, undertaken from 2012 to 2014, to map and characterise all 229 wetlands in the county. This makes county Kildare the first Irish county with a complete wetland inventory. <http://www.fossenvironmentalconsulting.com/wetland-survey-ireland--map/wetland-map-of-ireland-news/archives/10-2014.html>



Several other sites of biodiversity interest can be found in the town



# 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:

- The local community has been instrumental in the production of several biodiversity surveys & reports including:
  - River Liffey at Ballymore Eustace An Investigative Assessment, A Report to Irish Water August 2017 Martin McGarrigle Limnos Consultancy (Carried out at the request of Ballymore Eustace TSAA)
  - Ballymore Eustace WTP Spillway Chemistry and Impact on River Liffey. A Report to Irish Water 7 June 2018 Martin McGarrigle Limnos Consultancy (Follow-on from above)
  - Macklin, R. & Brazier, B. (2018) Biodiversity assessment of the River Liffey, Ballymore Eustace, Co. Kildare with management recommendations. Prepared by Triturus Environmental Services for Ballymore Eustace Trout and Salmon Anglers' Association.
  - Ballymore Eustace Bat Survey by Dr. Tina Aughney (2013) in partnership with Kildare Bat Group, Bat Conservation Ireland & Ballymore Eustace Tidy Towns.
  - Alien Species Survey and Management Recommendations for Ballymore Eustace, Interim Report August 18th Mary O'Connor August 2014.
- In 2020, Tidy Towns planted a biodiversity hedge at Priest's Garden, River Walk 27<sup>th</sup> January 2019
- Local volunteers have created and managed the wildflower meadow at the Kimmeens on the Naas Road.
- 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.



Since 2013, the local community has been instrumental in the production of 5 surveys & reports on local biodiversity

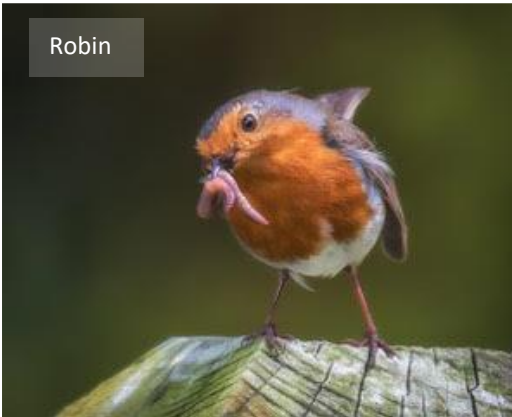


# Wildlife of Kildare

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 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 Ballymore Eustace 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 Ballymore Eustace 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   | Carry out the following biodiversity habitat enhancement works within the Liffey Riverside Walk:  |  |   |
|   | 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)   | KCC Heritage   | 2021-25                                   |
|   | B. Plant 20no. native trees around the pumping station. Species could include Oak, Birch and Hazel.   | Ballymore Eustace Tidy Towns (BETT)<br>BETT with local volunteers<br>(P.Walsh)       | March 2021<br><br>2021-25 (Aug each year) |
|   | C. Manage the wildflower hay meadow areas by cutting and lifting them each year. Plan for this at the beginning of the year.  | As above   | Aug 2021                                  |
|   | D. This could be a good location for a Heritage Week event demonstrating traditional hand scything.   | BETT   | 2021                                      |
|   | E. Continue to manage the grass area beside the Liffey Bridge as a shortcut wildflower meadow (cut and lift every 6 weeks during the grass growing season)  | Local Volunteer with BETT<br>BETT with<br>Transition Year (TY)<br>Student volunteers | 2020-21                                   |
|   | F. Create a wildflower meadow in section of Priest's Garden adjacent to the River Walk  |  |   |
| 1.1.2   | Replant Liffey Bridge boat feature with spring bulbs and herbaceous perennials for colour and interest for most of the year.  |  |   |
| 1.1.2   | Enhance all lanes within the village for biodiversity by planting shade / semi-shade tolerant wildflower bulbs and plugs Native species such as Bluebell (native variety only), Wood Avens, Red Campion, Wild Garlic, etc. are suitable. These can include: |  |   |
|   | <ul style="list-style-type: none"> <li>Close Lane</li> </ul>  | Dave and Sandra Butler and local community   | 2021-25                                   |
|   | <ul style="list-style-type: none"> <li>Pudding Lane &amp; other lanes (Balladallagh, Dowdenstown, Bishopshill, Seasons, Bandhall)</li> </ul>  | TY Students and local volunteers   | 2021-25                                   |
|   | Link all the lanes as a pleasant safe biodiversity rich walking route.  | CDA and local community  | 2021                                      |
| 1.1.3   | Replace some of the larger shrub species in Market Square with pollinator friendly herbaceous perennials and alpinas such as Sedum, Sempervivums, saxifrages etc. Planting mix selected should reflect theme of monument (Upper Liffey).                    | BETT with local volunteers   | 2021-25                                   |
| 1.1.4   | Manage the wildflower meadow bank on the R411 at Kimmeens by cutting and lifting it each year. Plan this at the beginning of the year. Augment with native wildflower seed, particularly Yellow Rattle after it is cut and lifted.                          | BETT with local community volunteers.<br>(P.Walsh)                                   | 2021-25                                   |
|   | Explore opportunities to manage other roadside verges around the village and on approach roads as wildflower rich verges with road safety in mind. These include the following sites:   | BETT with local volunteers   | 2021-25                                   |

| <b>Target 1.1 Make the town's public spaces more biodiversity friendly</b> |   |  |                    |
|--|---|--|--------------------|
| <b>No.</b>   | <b>Action</b>   | <b>Who</b>   | <b>When</b>        |
|  | <ul style="list-style-type: none"> <li>• The ESB Golden Falls Station boundary verge on the R411 has a good bluebell crop and umbellifers.</li> <li>• The R413 road to Mountcashel</li> <li>• The verge at St John's Church on the L2025</li> <li>• The old Grave yard at St. John's is a biodiversity gem with snowdrops and bluebells in Spring and many umbellifers in Summer</li> <li>• Sections of the Bishopshill roadside verge</li> <li>• Roadside verges to the fronts of proposed new developments</li> </ul>   |  |                    |
| <b>1.1.5</b>   | <p>Irish Water will develop a Biodiversity Management Plan for the Ballymore Eustace Water Treatment Plant site, which will clearly identify a range of biodiversity enhancement measures to be implemented at this site.</p> <p>These plans could include:</p> <ul style="list-style-type: none"> <li>• The planting of a native hedgerow along new palisade fencing on 5km walking trail on Irish Water/DCC/Water Treatment Plant land. – delivered in 2020-21 planting season</li> <li>• Monitoring run-off from lagoon area for leachate into Liffey.</li> <li>• Explore options for the removal of the sludge from the lagoon site to an appropriate landfill site.</li> </ul> | Dublin City Council / Irish Water<br>Ballymore Eustace<br>CDA                                    | 2021-25            |
| <b>1.1.6</b>   | <p>Carry out the following biodiversity habitat enhancement works at the cemetery:</p> <ol style="list-style-type: none"> <li>Manage the wildflower meadow by cutting and lifting it each year. Plan for this at the beginning of the year. Continue to work with the local farmer who currently cuts and lifts it annually. Augment with native wildflower plugs (spring) and seed (autumn).</li> <li>Plant a native hedgerow along the wall on the southern boundary.</li> </ol>  | KCC.; Ballymore Eustace Cemetery Committee and local community<br>As above with local volunteers | 2021-25<br>2021-25 |
| <b>1.1.7</b>   | <p>Ensure all existing and new flower beds, containers and hanging baskets are planted with spring bulbs and pollinator friendly perennials. This includes the Junction of Naas / Coughlanstown Roads and Barrack Street Gateway.</p>   | BETT with local community volunteers   | 2021-25            |

| <b>Target 1.2 Make the town's private lands more biodiversity friendly</b> |  |  |   |
|--|--|--|---|
| <b>No.</b>   | <b>Action</b>  | <b>Who</b>   | <b>When</b>   |
| <b>1.2.1</b>   | Run a 'Garden Tree Giveaway' in conjunction with 'Trees on the Land' either as part of a local gardening competition or other community event in Feb/March. Tree mix (whips only) to include: Rowan, Birch, Hazel and Wild Cherry.   | BETT.<br>Trees sponsored by<br>Trees on the Land   | 2021-22<br>(Feb/March)  |
| <b>1.2.2</b>   | Maximise the campus of Scoil Mhuire for outdoor learning and biodiversity by: <ul style="list-style-type: none"> <li>A. Creating an edible garden under and around the fruit trees. This should include fruit bushes, vegetable beds, and ground cover plants such as strawberry.</li> <li>B. Planting the existing timber tubs with different herbs such as parsley, thyme, rosemary, chives, sage, fennel etc.</li> <li>C. Replacing the existing shrubs in the planting bed beside the school yard with pollinator friendly planting mix to create a 'Wildlife Corner'.</li> <li>D. Replace some of the non-native evergreen shrubs on the bank in the back field with native plants such as Hazel, Holly, Guelder Rose and Rowan.</li> <li>E. Scoil Mhuire is to receive additional land as part of the Masonbrook Development planning permission. Support Scoil Mhuire with ideas / actions that will maximise the biodiversity and outdoor learning potential of this land as part of any new proposed development.</li> </ul>  | Scoil Mhuire Mgt<br>Committee with<br>Principal, Staff & Pupils<br>As above<br><br>As above with<br>community volunteers<br><br>As above with local<br>community volunteers<br><br>Scoil Mhuire<br>Management<br>Committee, School<br>Principal etc. | 2021-25<br><br>2021<br><br>2021<br><br>2021-25<br><br>2021-25 |
| <b>1.2.3</b>   | Explore the opportunity to carry out the following habitat and visual enhancement works in residential estates in the town: <ul style="list-style-type: none"> <li>● Plant native hedgerows (including edible plants) or climbers against internal boundary concrete walls and along the front boundaries of residential estates in the town.</li> <li>● 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.</li> <li>● 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.</li> <li>● 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.</li> <li>● Install bird and bat boxes at suitable locations.</li> <li>● Where possible create a wildlife pond. Secure with fencing if necessary.</li> </ul> <p>Discuss the possibility with Ballymore Contracting Ltd. about the site at the Junction of the Riverwalk and Ballymore Contracting Ltd Site at Doran's Park.</p> <p>Target 1-2 residential estates each year to work with (all actions should be agreed with the residents). These can then act as 'champions' within the town for other estates in subsequent years.</p> | BETT with Resident<br>Committees/volunteers<br>and support from local<br>environmental Non-<br>Government<br>Organisations (eNGOs)   | 2021-25   |
| <b>1.2.4</b>   | Explore the opportunity to plant the area of rank vegetation in Hillcrest estate with a mix of native trees including Oak (in small quantities), Birch, Holly, Hazel, Rowan and Hawthorn or a group of fruit trees such as apple, pear, plum, cherry. Paths could be mown through the grass underneath. All actions should be agreed with the residents.   | BETT but mainly Hillcrest<br>Residents and<br>volunteers   | 2021-25   |

| <b>Target 1.2 Make the town's private lands more biodiversity friendly</b> |   |   |             |
|--|---|---|-------------|
| <b>No.</b>   | <b>Action</b>   | <b>Who</b>                                | <b>When</b> |
| <b>1.2.5</b>   | Maintain and if needed, replace some plants in shrubberies at Assumpta Terrace, St. Brigid's Park, Junction Naas/Coughlanstown Rd, and Barrack Street Gateway.  | BETT with local community volunteers      | 2021-25     |
| <b>1.2.6</b>   | Work with the GAA on the <b>National Sustainable Club and Community Programme</b> which includes Biodiversity. Cappagh are one of the clubs, nationally, to be chosen for the Pilot.  | KCC, GAA, Local community                 | -           |
| <b>1.2.7</b>   | Support the work of the ESB in the sensitive management of the Golden Falls forestry which will focus on the promotion of biodiversity.   | ESB                                       | 2021-2022   |
| <b>1.2.8</b>   | Explore the opportunity to work with the developers of all proposed new residential developments in the town to maximise the use of green infrastructure and biodiversity enhancement features on site. This should include a focus on native plants wherever possible. | Private Building Contractors / Developers | 2021        |

| <b>Target 1.3 Make the town's surrounding lands more biodiversity friendly</b> |  |  |             |
|--|--|--|-------------|
| <b>No.</b>   | <b>Action</b>  | <b>Who</b>   | <b>When</b> |
| <b>1.3.1</b>   | Participate in a Himalayan Balsam control project for the River Liffey catchment area. This project is being planned as a Liffey Catchment project by the Kildare Co. Co. Heritage Office.<br><br>As part of this project, monitor for other invasive species along the river and surrounds. Japanese knotweed was previously noted and therefore needs to be monitored. | Newbridge TT, Kilcullen TT & Ballymore TT / Kildare Co. Co./Wicklow Co.Co./ESB/IW/LAWCO Officer/Local Angling Groups/Inland Fisheries Ireland/National Biodiversity Data Centre, | 2021-25     |
| <b>1.3.2</b>   | 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.   | Kildare County Council Heritage Dept with BETT and BEES (P.Walsh)  | 2021-25     |

| <b>Target 1.4 Deliver species-specific conservation projects</b> |  |  |             |
|--|--|--|-------------|
| <b>No.</b>   | <b>Action</b>  | <b>Who</b>                                   | <b>When</b> |
| <b>1.4.1</b>   | Install more Swift boxes on suitable locations in the town e.g. the Band Hall, Handball Alley. This could be delivered as part of Wild Kildare's Swift box project work. Lobby for Swift bricks to be included in future developments.   | Maria O'Neill liaising with local eNGOs      | Ongoing     |
| <b>1.4.2</b>   | Carry out a Brimstone butterfly project: plant their larval food plant the native Buckthorn bush and run a promotional event about the species / project. Source native Purging buckthorn ( <i>Rhamnus cathartica</i> ) and alder buckthorn ( <i>Frangula alnus</i> ). May be suitable ground along river banks. | Advice from Trees on the Land BETT (P.Walsh) | -           |

# 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 3-4no. interpretation posts at selected locations on the existing Riverside Walk. These can cover the following topics: the value of nettles, wildflower meadows, woodland plants and animals, and local cultural and built heritage.  | BETT   | 2021-25  |
| 2.1.2  | Install interpretation posts at selected locations on the proposed Ballymore Looped Walk. These can cover local natural, cultural and built heritage along the route and tie in with those proposed in Action 2.1.1.   | Ballymore Eustace Community Development Association (CDA)                    | 2021-25  |
| 2.1.3  | Run a minimum of 2 wildlife related events (e.g. walks, talks, workshops) each year. These 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. They should also include: <ul style="list-style-type: none"> <li>• A Swift talk to highlight the life cycle, conservation issues and local actions being carried out to conserve it.</li> <li>• A talk on Lapwing</li> <li>• A half day 'Gardening for Wildlife' workshop - should include a talk and practical demonstrations</li> <li>• Introduction to permaculture including edible hedging</li> </ul> These can be delivered as Ballymore Eustace only events or in partnership with other neighbouring communities where appropriate. | BETT (M.O'Neill) with Wild Kildare   | 2021-25 (time of year is dependent on each specific event) |
| 2.1.4  | Use any vacant shop fronts in the town to display / interpret the local natural, built and cultural heritage of the area.  | BETT and Ballymore Eustace History Society                                   | 2021-25  |
| 2.1.5  | Use local social media to raise awareness of local biodiversity and conservation issues.   | Ballymore Eustace for Environmental Sustainability (BEES), BETT (M. O'Neill) | 2021-25  |
| 2.1.6  | Maintain the murals on the utility boxes around the town.<br><br>Paint other boxes not yet painted.  | Ballymore Eustace Art Group  | 2021-25  |
| 2.1.7  | Hold a community wildflower seed collection event in July.   | BETT, BEES (M.O'Neill, P.Walsh)  | 2021   |
| 2.1.8  | Organise an educational hedge-laying event to teach traditional hedge-laying methods that improve the function and health of native hedgerows.   | BETT with IFA or local farmer  | 2022   |
| 2.1.9  | Consult and liaise with the ESB in relation to organising events aimed at raising and enhancing local awareness and knowledge about the workings of the Poulaphouca Reservoir and Liffey Scheme.   | ESB & Ballymore Eustace Trout and Salmon Anglers' Association (TSAA)         | 2021-25  |



## 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        |
|--------|---|---|-------------|
|        | To work with IW and various authorities regarding the monitoring of the water quality of the Golden Falls Lake and the River Liffey at Ballymore Eustace.<br><br>Actions:<br>(a) Continue to submit submissions on planning applications requiring discharges into the Liffey at Ballymore Eustace.<br>(b) Submit submission to EPA when WWDL's are being applied for or renewed.<br>(c) Continue to obtain discharge and ambient monitoring results for all discharges to Golden Falls Lake and the River Liffey at Ballymore Eustace. Report breaches Waste Water Discharge Licence (WWDL) Emission Limit Values (ELV) to all the relevant authorities i.e. KCC, IW, EPA, IFI, ESB, WCC.<br>(d) Report algal blooms on Golden Falls Lake to relevant authorities. | Ballymore Eustace (TSA) and local community | Ongoing     |
|        | Action 2 Irish Water/DCC WTP/Sludge Treatment Plant<br>Continue to monitor compliance with Bord Pleanala PL09.229575 Condition 8.<br>Report annual Filamentous Algae pollution of Liffey due to the discharge of WTP coagulation/flocculation chemicals to the river.<br>Request Kildare County Council to investigate high ammonia concentrations downstream of Ballymore Eustace Bridge   | As above                                    | Ongoing     |
|        | Explore the opportunity with IW and Inland Fisheries Ireland, to develop a Trout and Salmon Habitat Enhancement Programme for the Liffey at Ballymore Eustace.<br>The aim of the enhancement programme is the removal of the settled out aluminium hydroxide/polyelectrolyte solids from the trout and salmon spawning beds, i.e. raking of the gravel beds to make them more conducive to spawning, similar to that carried out in the past.   | As above                                    | Ongoing     |
| 2.1.10 | Raise awareness of locally designated sites and sites of natural heritage interest through local social media and by hosting events (walks / talks) about them.<br><br>Sites include pNHA sites Poulaphouca Reservoir (also SAC & SPA) Mountcashel, Liffey Valley Meander Belt (Coughlanstown) and the Petrifying Spring area on Irish Water Land at Bishopsland (4km walking trail).   | CDA and local community                     | 2021 - 2025 |

## Target 2.2 Support education opportunities in schools at all levels

| No.   | Action   | Who  | When    |
|-------|--|--|---------|
| 2.2.1 | Ensure Scoil Mhuire has a copy of the All-Ireland Pollinator Plan guides for schools and the Junior All-Ireland Pollinator Plan. Available at <a href="http://www.pollinators.ie/resources">www.pollinators.ie/resources</a> | BETT   | 2021    |
| 2.2.2 | Support 1 wildlife event each year with Scoil Mhuire using the different areas of habitat on the campus. This can be a wildlife walk, talk, nature art class or workshop.  | BETT, BEES, Scoil Mhuire Green School Teacher and Committee with school pupils | 2021-25 |

## Target 2.2 Support education opportunities in schools at all levels

| No.   | Action   | Who  | When |
|-------|--|--|------|
| 2.2.3 | Install signage in the proposed wildlife garden spaces (edible garden, herb garden tubs, and wildlife corner) to maximise outdoor learning. These can be created by the school pupils as part of class activities. | Scoil Mhuire Green School Teacher and Committee with school pupils | 2021 |

## 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 village. 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.<br><br>Consider organising this event in partnership with other local communities. | BEES (M.O'Neill)<br>Health Consultant<br>Other Tidy Towns Groups.           | 2021-25 |
| 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.  | Other Tidy Towns Groups, BEES with local farmers and farming organisations. | 2021-25 |
| 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. See <a href="http://www.pollinators.ie/resources">www.pollinators.ie/resources</a>  | BETT  | 2021-25 |
| 2.3.4 | Post links to the All-Ireland Pollinator Plan guides on local social media each year.  | BEES (M.O'Neill)<br>BETT  | 2021-25 |
| 2.3.5 | Implement a policy of no Invasive plant species in new planting schemes in the town.   | BEES and BETT   | 2021-25 |
| 2.3.6 | Submit proposals to Kildare County Council on any new developments in the town that they should incorporate best practice green infrastructure design principles and biodiversity features (e.g. Swift bricks, see Action 1.4.1).<br><br>This should ideally be done at the planning stage. Where plans have developed beyond planning, engage with the developers about the benefits that green infrastructure design can deliver for them.                         | BEES,<br>CDA,<br>BETT   | 2021-25 |
| 2.3.7 | Liaise with the development of the proposed new playground in accordance with best practice natural play design principles. Lobby Kildare Co. Co. to think about using natural play elements in their Open Space policy.   | CDA   | 2021-25 |
| 2.3.8 | Reach out to, and support, all residential estates with biodiversity enhancement actions.  | BEES, BETT,<br>Residents Committees   | 2021-25 |
| 2.3.9 | Create a wildlife gardening buddy scheme. This scheme will pair more experienced gardeners with others in the community.   | Ballymore Eustace Grow It Yourself Group (GIY)                              | -       |

# 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 the Swift boxes on Scoil Mhuire. Liaise with local environmental Non-Government Organisations (eNGOs) such as Wild Kildare on this work. | Maria O'Neill, Local eNGOs such as Wild Kildare | 2021                                  |
| 3.1.2   | Participate in Wild Kildare's 'Moth Atlas' for the county  | P.Walsh   | 2021                                  |
| 3.1.3   | Develop at least 1 bumblebee transect in the town and submit records to the NBDC. This can be achieved by enlisting a local volunteer  | P.Walsh   | -                                     |
| 3.1.4   | Develop at least 1 butterfly transect in the town and submit records to the NBDC   | P.Walsh   | -                                     |
| 3.1.5   | Survey and monitor the plant species in the wildflower meadow verge at R411 the Kimmeens.  | BETT<br>BEES                                    | Summer 2021 & 2025                    |
| 3.1.6   | Record all biodiversity records onto the National Biodiversity Data Centre. Encourage other members of the community to do likewise.   | BETT, BEES, CDA, TSAA                           | -                                     |
| 3.1.7   | Record and map all biodiversity actions delivered at: <a href="https://pollinators.biodiversityireland.ie/">https://pollinators.biodiversityireland.ie/</a>  | As above  | -                                     |
| 3.1.8   | Carry out the All-Ireland Daubenton's Bat survey.  | BETT  | Ongoing except 2021                   |
| 3.1.9   | Publicise the previous bat survey of the town (Aughney, 2013) and carry out a new survey.  | Local and national eNGOs                        | 2024 (after new housing developments) |

| 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. | BETT,<br>BEES             | 2021              |
| 3.2.2   | The sub-committee shall carry out an annual review of the Action Plan.  |                           | 2021, 2022 & 2024 |
| 3.2.3   | Carry out a more detailed mid-term review of the Action Plan.   | BETT<br>BEES subcommittee | 2023              |
| 3.2.4   | Carry out a full detailed review of the Action Plan in the final year.  | As above                  | Summer 2025       |
| 3.2.5   | Plan for the updating / renewing of a subsequent 5-year plan to run from 2026-2030.   | As above                  | Summer 2024       |

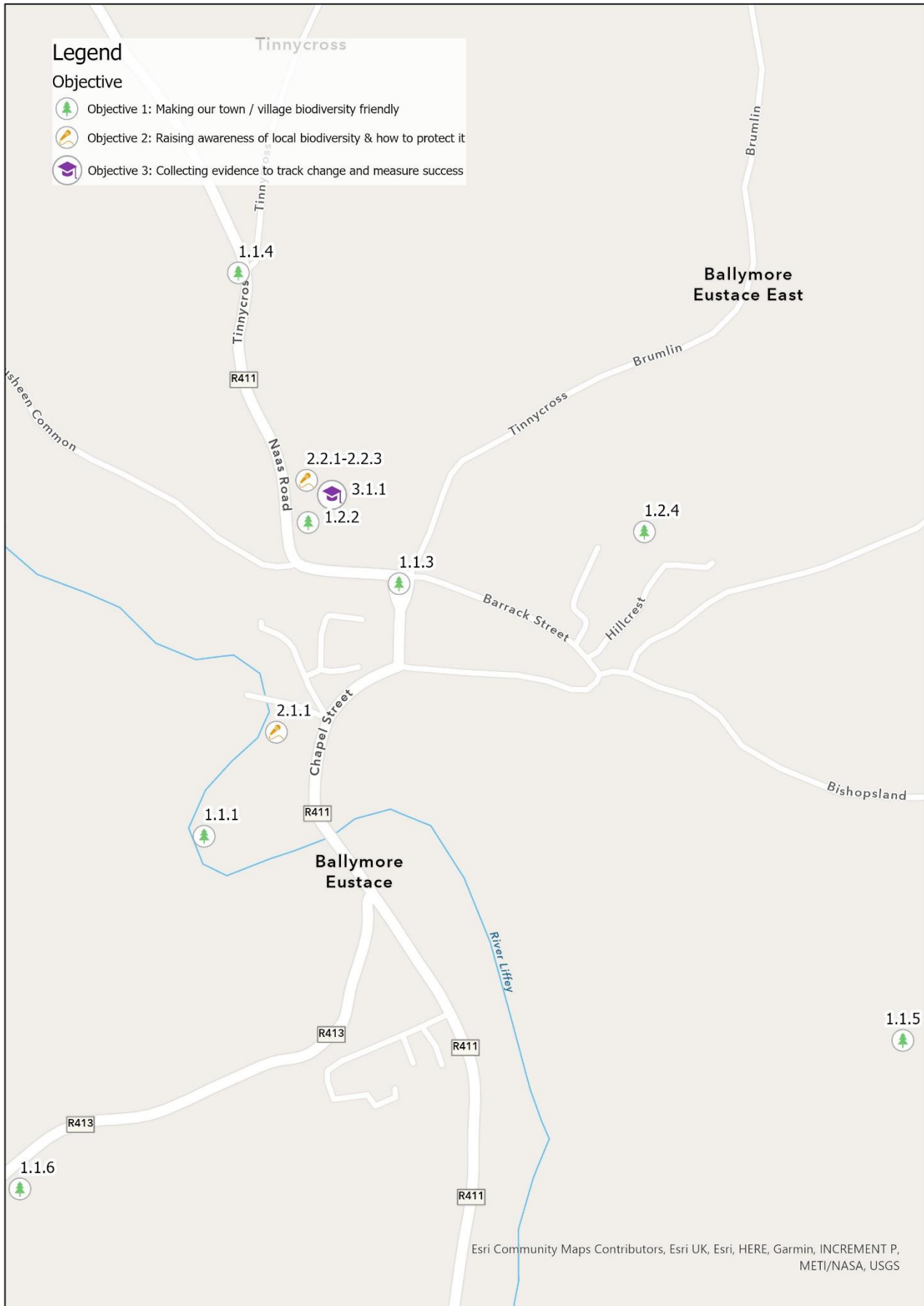
# Objective 4: Build local capacity to manage & record biodiversity

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 the Ballymore Eustace area and then make contact and offer help / partner on local projects.  | BETT, BEES (M.O'Neill) | 2021    |
| 4.1.2  | Identify sources of native wildflowers (this should include Yellow Rattle - known to occur at the Kimmeens) as places for community seed collections - this can include other donor sources in the county  | BETT, BEES (M.O'Neill) | 2021    |
| 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.   | BETT, BEES             | 2021    |
| 4.1.4  | Organise a wildflower identification walk/workshop in the town in order to build up expertise in the town for recording wildflowers. An identification sheet could be produced in conjunction with Kildare Heritage Office that could be made available online and in the local P.O. | BETT, BEES             | -       |
| 4.1.5  | Promote the 'Green Club' project with Ballymore G.A.A.   | BETT, BEES             | 2021-25 |
| 4.1.6  | 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, BETT              | 2021    |

| Target 4.2 Build up local resources of materials and equipment to manage and record biodiversity |   |                               |         |
|--|---|-------------------------------|---------|
| No.  | Action  | Who                           | When    |
| 4.2.1  | Explore the opportunity to use a section of the privately owned polytunnels in the town during autumn-spring each year for growing wildflowers (with approval from the owners). This will be used to grow all the town's flowers and plants for use in new community planting schemes and wildflower meadows.   | BETT, BEES                    | 2021    |
| 4.2.2  | Purchase meadow maintenance equipment for community use. This should be explored in partnership with other neighbouring towns and villages. Equipment could include a power scythe, leaf vacuum, wheelbarrows, hay forks, etc.<br><br>If working with other neighbouring groups then an annual schedule for its use, maintenance /servicing plans, insurance & other costs should be agreed in advance. | BETT, BEES, CDA               | 2021-25 |
| 4.2.3  | Build up a stock of biodiversity resources e.g. identification swatches, bat detectors, moth traps etc. Kildare Heritage Office will help with starting this off.   | KCC, BETT, BEES, Scoil Mhuire | 2021-25 |

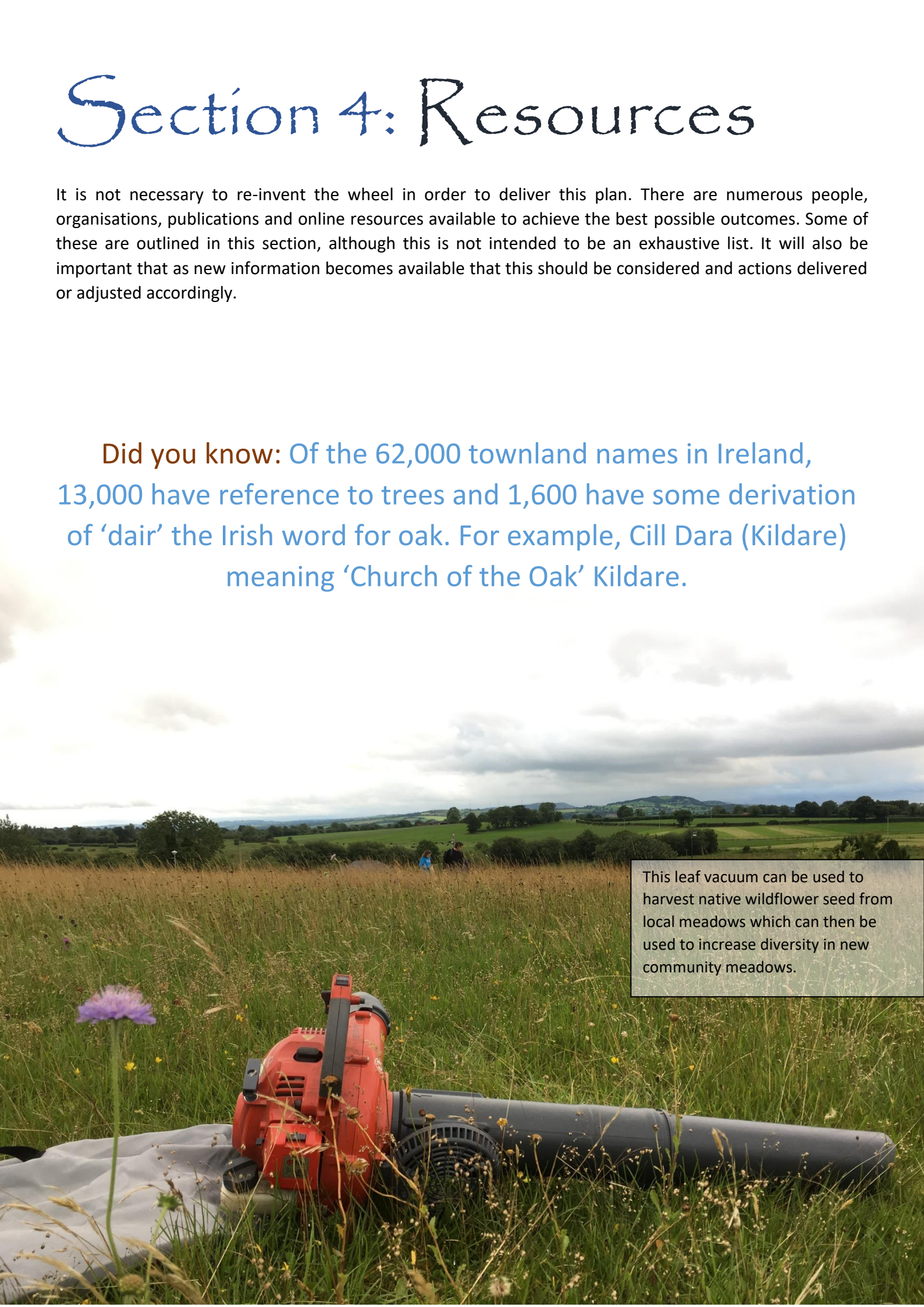
# Mapping the Actions



# 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)  |
|---|--|
| <b>Bats</b>                                 | <ul style="list-style-type: none"> <li>• <a href="https://www.batconservationireland.org/">https://www.batconservationireland.org/</a></li> <li>• <a href="https://kildarebatgroup.wordpress.com/">https://kildarebatgroup.wordpress.com/</a></li> </ul>   |
| <b>Birdwatching</b>                         | <ul style="list-style-type: none"> <li>• <a href="http://www.birdwatchkildare.com/?page_id=23">http://www.birdwatchkildare.com/?page_id=23</a></li> <li>• <a href="https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/">https://birdwatchireland.ie/irelands-birds-birdwatch-ireland/</a></li> <li>• <a href="http://www.irishbirding.com">www.irishbirding.com</a></li> </ul>   |
| <b>Children's Biodiversity Activities</b>   | <ul style="list-style-type: none"> <li>• <a href="https://birdwatchireland.ie/our-work/fun-learning/for-kids/">https://birdwatchireland.ie/our-work/fun-learning/for-kids/</a></li> <li>• <a href="https://www.woodlandtrust.org.uk/blog/2020/03/kids-nature-activities-self-isolation/">https://www.woodlandtrust.org.uk/blog/2020/03/kids-nature-activities-self-isolation/</a></li> <li>• <a href="https://www.rspb.org.uk/fun-and-learning/">https://www.rspb.org.uk/fun-and-learning/</a></li> </ul>  |
| <b>General Biodiversity Issues</b>          | <ul style="list-style-type: none"> <li>• <a href="https://www.biodiversityireland.ie/">https://www.biodiversityireland.ie/</a></li> <li>• <a href="http://www.npws.ie">www.npws.ie</a></li> </ul>  |
| <b>Habitat Boxes</b>                        | <ul style="list-style-type: none"> <li>• <a href="https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-1-ALT_FINAL.pdf">https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-1-ALT_FINAL.pdf</a></li> <li>• <a href="https://birdwatchireland.ie/app/uploads/2019/09/Nestboxes-factsheet.pdf">https://birdwatchireland.ie/app/uploads/2019/09/Nestboxes-factsheet.pdf</a></li> <li>• <a href="https://www.batconservationireland.org/wp-content/uploads/2015/05/BCIrelandGuidelines_BatBoxes.pdf">https://www.batconservationireland.org/wp-content/uploads/2015/05/BCIrelandGuidelines_BatBoxes.pdf</a></li> </ul>  |
| <b>Hedgerows</b>                            | <ul style="list-style-type: none"> <li>• <a href="https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-3-FINAL-1.pdf">https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-3-FINAL-1.pdf</a></li> <li>• <a href="https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf">https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf</a></li> <li>• <a href="https://63273-649646-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf">https://63273-649646-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf</a></li> <li>• <a href="https://mosart.ie/wp-content/uploads/2016/02/Irish-Hedgerows-Networks-for-Nature.pdf">https://mosart.ie/wp-content/uploads/2016/02/Irish-Hedgerows-Networks-for-Nature.pdf</a></li> <li>• <a href="http://www.hedgelaying.ie">www.hedgelaying.ie</a></li> </ul> |
| <b>Interpretative Signage</b>               | <ul style="list-style-type: none"> <li>• <a href="https://www.nature.scot/sites/default/files/2019-11/Guidance%20-%20Natural%20heritage%20interpretation_1.pdf">https://www.nature.scot/sites/default/files/2019-11/Guidance%20-%20Natural%20heritage%20interpretation_1.pdf</a></li> <li>• <a href="https://www.heritagecouncil.ie/content/files/bored_of_boards_1mb.pdf">https://www.heritagecouncil.ie/content/files/bored_of_boards_1mb.pdf</a></li> <li>• <a href="https://pollinators.ie/resources/signage-templates/">https://pollinators.ie/resources/signage-templates/</a></li> </ul>  |
| <b>Invasive Alien Species</b>               | <ul style="list-style-type: none"> <li>• <a href="https://invasivespeciesireland.com/">https://invasivespeciesireland.com/</a></li> <li>• <a href="https://www.fisheriesireland.ie/Invasive-Species/invasive-species.html">https://www.fisheriesireland.ie/Invasive-Species/invasive-species.html</a></li> </ul>   |
| <b>Local Biodiversity News</b>              | <ul style="list-style-type: none"> <li>• <a href="https://www.facebook.com/Wild-Kildare-1437313092971392/">https://www.facebook.com/Wild-Kildare-1437313092971392/</a></li> <li>• <a href="http://www.birdwatchkildare.com/">http://www.birdwatchkildare.com/</a></li> <li>• <a href="https://kildarebatgroup.wordpress.com/">https://kildarebatgroup.wordpress.com/</a></li> <li>• <a href="http://www.kildare.ie/CountyCouncil/Heritage/Biodiversity/">http://www.kildare.ie/CountyCouncil/Heritage/Biodiversity/</a></li> </ul>   |
| <b>Nature Trails</b>                        | <ul style="list-style-type: none"> <li>• <a href="http://www.walkingroutes.ie/WalkingTrails/Kildare">http://www.walkingroutes.ie/WalkingTrails/Kildare</a></li> </ul>  |
| <b>Orchards</b>                             | <ul style="list-style-type: none"> <li>• <a href="http://www.irishseedsavers.ie/blog/wp-content/uploads/2014/10/CreatingAnOrchard.pdf">http://www.irishseedsavers.ie/blog/wp-content/uploads/2014/10/CreatingAnOrchard.pdf</a></li> <li>• <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11466/1973262.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11466/1973262.pdf</a></li> <li>• <a href="http://www.wetlandsystems.ie/goephow.html">http://www.wetlandsystems.ie/goephow.html</a></li> <li>• <a href="https://www.theorchardproject.org.uk/">https://www.theorchardproject.org.uk/</a></li> </ul>   |
| <b>Peatlands</b>                            | <ul style="list-style-type: none"> <li>• <a href="http://www.ipcc.ie">www.ipcc.ie</a></li> <li>• <a href="http://www.bordnamona.ie/transform/biodiversity">www.bordnamona.ie/transform/biodiversity</a></li> <li>• <a href="http://www.abbeyleixbog.ie">www.abbeyleixbog.ie</a></li> </ul>   |
| <b>Pollinator Friendly Planting Schemes</b> | <ul style="list-style-type: none"> <li>• <a href="https://pollinators.ie/resources/">https://pollinators.ie/resources/</a></li> <li>• <a href="https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf">https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf</a></li> <li>• <a href="http://www.rhs.org.uk">www.rhs.org.uk</a></li> </ul>   |
| <b>Pollinators</b>                          | <ul style="list-style-type: none"> <li>• <a href="https://pollinators.ie/">https://pollinators.ie/</a></li> </ul>  |
| <b>Recording Biodiversity</b>               | <ul style="list-style-type: none"> <li>• <a href="https://www.biodiversityireland.ie/record-biodiversity/">https://www.biodiversityireland.ie/record-biodiversity/</a></li> </ul>  |
| <b>Reducing Herbicide Use</b>               | <ul style="list-style-type: none"> <li>• <a href="https://greensideup.ie/16-natural-alternatives-to-herbicide-why-you-should-use-them/">https://greensideup.ie/16-natural-alternatives-to-herbicide-why-you-should-use-them/</a></li> </ul>  |
| <b>Schools &amp; Biodiversity</b>           | <ul style="list-style-type: none"> <li>• <a href="https://greenschoolsireland.org/biodiversity/">https://greenschoolsireland.org/biodiversity/</a></li> <li>• <a href="https://pollinators.ie/schools/">https://pollinators.ie/schools/</a></li> <li>• <a href="http://www.heritageinschools.ie/teachers-resources/strand/living-things-science/p3?q=&amp;c=">http://www.heritageinschools.ie/teachers-resources/strand/living-things-science/p3?q=&amp;c=</a></li> </ul>  |

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

# 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 <a href="mailto:info@countykildarelp.ie">info@countykildarelp.ie</a> . Website: <a href="http://www.countykildarelp.ie/">www.countykildarelp.ie/</a>  |
| Kildare County Council                                     | For additional information in relation to funding for biodiversity and heritage projects, contact the Heritage Officer - Tel. 045 980791 or email <a href="mailto:heritageofficer@kildarecoco.ie">heritageofficer@kildarecoco.ie</a>  |
| 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. <a href="https://www.communityfoundation.ie/insights/news/environment-and-nature-fund-2019">https://www.communityfoundation.ie/insights/news/environment-and-nature-fund-2019</a>   |
| Heritage Council   | The Heritage Council supports a wide range of heritage projects throughout the country through our annual grants programme. <a href="https://www.heritagecouncil.ie/funding">https://www.heritagecouncil.ie/funding</a>   |
| 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: <a href="http://watersandcommunities.ie/community-water-officers/">http://watersandcommunities.ie/community-water-officers/</a>   |
| Trees on the Land  | This charity aims to increase the amount of native Irish trees across Ireland. <a href="https://www.treesontheland.com/">https://www.treesontheland.com/</a>  |
| 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. <a href="https://www.agriculture.gov.ie/media/migration/forestry/grantandpremiumschemes/2015/NeighbourWoodScheme240717.pdf">https://www.agriculture.gov.ie/media/migration/forestry/grantandpremiumschemes/2015/NeighbourWoodScheme240717.pdf</a> |



# 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  |
|--|---|--|
| <b>Kildare County Council</b>  | The local Heritage Officer is available to discuss and provide information on biodiversity and heritage related matters and projects.   | Tel. 045 980791 or email <a href="mailto:heritageofficer@kildarecoco.ie">heritageofficer@kildarecoco.ie</a>  |
| <b>Kildare Public Participation Network</b>                            | Public Participation Networks (PPNs) act as an independent structure to facilitate public participation in policy and decision making with the local authorities.<br><br>Community and voluntary, social inclusion, and environmental groups are encouraged to join Kildare PPN.  | Telephone: 045 980700<br>Email: <a href="mailto:admin@kildareppn.ie">admin@kildareppn.ie</a><br>Website: <a href="https://www.kildareppn.ie/">https://www.kildareppn.ie/</a>         |
| <b>County Kildare LEADER Partnership CLG</b>                           | 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 <a href="mailto:info@countykildarelp.ie">info@countykildarelp.ie</a> . Website: <a href="http://www.countykildarelp.ie/">www.countykildarelp.ie/</a> |
| <b>Wild Kildare</b>  | Local volunteer environmental organisation.   | <a href="https://www.facebook.com/Wild-Kildare-1437313092971392/">https://www.facebook.com/Wild-Kildare-1437313092971392/</a>  |
| <b>Irish Wildlife Trust</b>  | National environmental charity covering all aspects of biodiversity.  | <a href="https://iwt.ie/">https://iwt.ie/</a>  |
| <b>BirdWatch Ireland Kildare</b>                                       | For information on Ireland's birds.   | <a href="https://birdwatchireland.ie/">https://birdwatchireland.ie/</a>  |
| <b>National Parks and Wildlife Service</b>                             | Responsible for managing the Irish State's nature conservation responsibilities.  | <a href="https://www.npws.ie/">https://www.npws.ie/</a>  |
| <b>All-Ireland Pollinator Plan</b>                                     | National Plan with the aim of creating an Ireland where pollinators can survive & thrive.   | <a href="https://pollinators.ie/">https://pollinators.ie/</a>  |
| <b>National Biodiversity Data Centre</b>                               | National centre for the collection, collation, management, analysis and dissemination of data on Ireland's biological diversity.  | <a href="https://www.biodiversityireland.ie/">https://www.biodiversityireland.ie/</a>  |
| <b>Vincent Wildlife Trust</b>  | National environmental charity with the aim of conserving and research into selected Irish mammals.   | <a href="https://www.vincentwildlife.ie/">https://www.vincentwildlife.ie/</a>  |
| <b>Botanical Society of Britain &amp; Ireland</b>                      | National organisation that promotes the study, understanding and enjoyment of British and Irish botany.   | <a href="https://bsbi.org/ireland">https://bsbi.org/ireland</a>  |
| <b>The Local Authority Waters Programme (Waters &amp; Communities)</b> | 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.  | <a href="http://watersandcommunities.ie/">http://watersandcommunities.ie/</a>  |
| <b>Ballymore Eustace Tidy Towns</b>                                    | Local Tidy Towns group.   | <a href="https://www.facebook.com/Ballymore-Eustace-Tidy-Towns-277305525785790/">https://www.facebook.com/Ballymore-Eustace-Tidy-Towns-277305525785790/</a>                          |
| <b>Bat Conservation Ireland</b>  | An all-Ireland charity that promotes the conservation of bats and their habitats.   | <a href="https://www.batconservationireland.org/">https://www.batconservationireland.org/</a>  |

|  |   |   |
|--|---|---|
| <b>Kildare Bat Group</b>                   | Members of Bat Conservation Ireland with a particular interest in Kildare bats.   | <a href="https://kildarebatgroup.wordpress.com/">https://kildarebatgroup.wordpress.com/</a> |
| <b>Kildare Animal Foundation</b>           | A local non-profit organisation dedicated to the welfare of cats, dogs and small animals.   | <a href="https://animalfoundation.ie/">https://animalfoundation.ie/</a>                     |
| <b>Irish Peatland Conservation Council</b> | A national charitable organisation with the aim of conserving and protecting a representative sample of Irish bogs, and to campaign on bog-related issues.  | <a href="http://www.ipcc.ie/">http://www.ipcc.ie/</a>                                       |
| <b>Kildare Community 4 Climate Action</b>  | 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. | <a href="https://www.facebook.com/KildareC4CA/">https://www.facebook.com/KildareC4CA/</a>   |




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*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/>*

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# 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:

|   |   |
|---|---|
| <b>Local Site Considerations</b>                | 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.  |
| <b>Practical Design Considerations</b>          | 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.   |
| <b>Community &amp; Stakeholder Consultation</b> | 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.  |

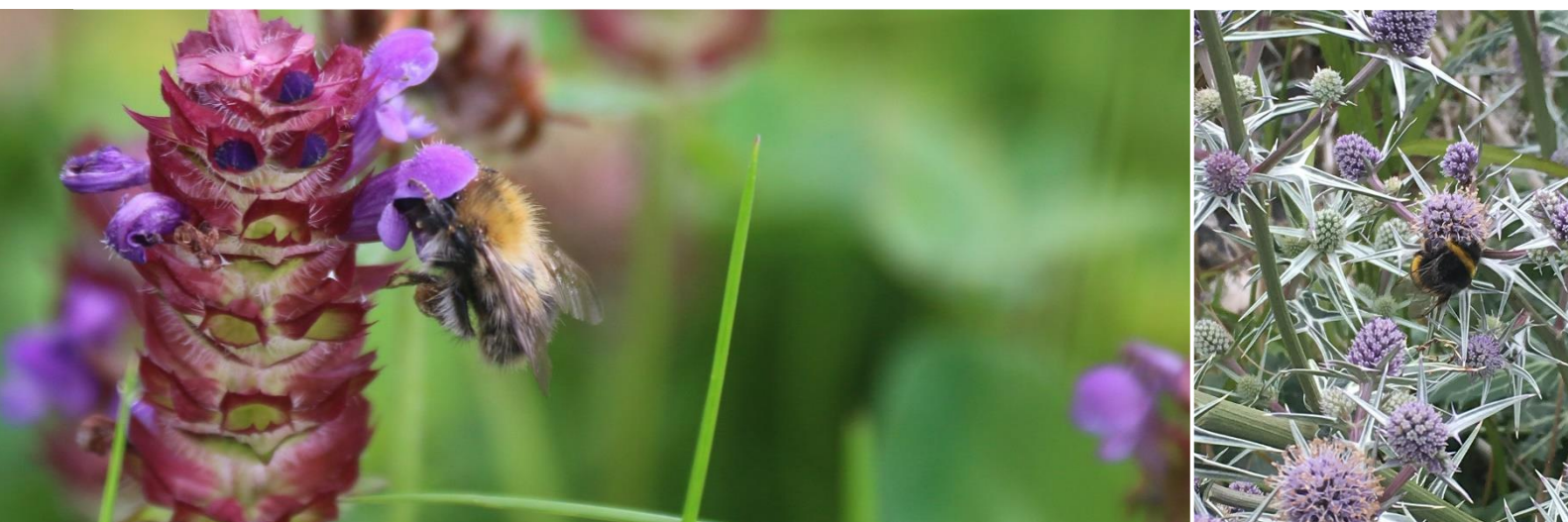
For more practical information, check out the Trees on the Land website: <https://www.treesontheland.com/planting-guide>

## 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"> <li>• <b>Japanese anemones</b> (<i>Anemone</i> x hybrid) – pink and white (autumn);</li> <li>• <b>Verbena bonariensis</b> (late summer);</li> <li>• <b>Foxgloves</b> (<i>Digitalis</i> spp) (early summer) – both pink and white varieties;</li> <li>• <b>Mullein</b> (<i>Verbascum</i> spp) (summer);</li> <li>• <b>Fennel</b> (<i>Foeniculum vulgare</i>);</li> <li>• <b>Teasel</b> (<i>Dipsacus</i> sp.) - Goldfinches love their seeds in winter.</li> <li>• Some <b>Rudbeckia daisies</b> will add bold colour too.</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Sedum ‘Autumn Joy’</b> (autumn);</li> <li>• <b>Masterwort</b> (<i>Astrantia major</i>) (available in various shades of pink and white, long flowering from summer into autumn);</li> <li>• <b>Yarrow</b> (<i>Achillea</i> spp) (summer into autumn);</li> <li>• <b>Avens</b> (<i>Geum</i> sp.) – brightly coloured with long-lasting flowers;</li> <li>• <b>Columbine/Granny’s bonnet</b> (<i>Aquilegia</i> sp) (early summer)</li> <li>• <b>Macedonian scabious</b> (<i>Knautia macedonica</i>).</li> <li>• <b>Hardy Geraniums/Cranesbills</b> (<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.</li> <li>• <b>Lenten Hellebores</b> (<i>Helleborus orientalis</i>) will give winter and spring interest.</li> <li>• <b>Penstemons</b>: A semi-woody perennial with tubular flowers that last from early summer right through to late autumn.</li> <li>• <b>Lady’s mantle</b> (<i>Alchemilla mollis</i>): attractive green flowers and leaves that flop over bed edges.</li> </ul> |
| <p>Also consider:</p> <ul style="list-style-type: none"> <li>• Herb species are great for pollinators as well as providing food for ourselves: chives, thyme, rosemary, oregano / marjoram and sage.</li> <li>• Native wildflowers add great colour and biodiversity interest &amp; will be a great addition to flowerbeds. Some may be crucial for different species of native biodiversity as food plants.</li> </ul>  |  |

## 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 (1<sup>st</sup> March-31<sup>st</sup> 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"> <li>• <b>Pedunculate oak</b> (<i>Quercus robur</i>) – prefers neutral/limestone soils</li> <li>• <b>Sessile oak</b> (<i>Quercus petraea</i>) – prefers slightly acid soils</li> <li>• <b>Willow</b> (<i>Salix</i> spp) – good for damp/waterside conditions</li> <li>• <b>Hazel</b> (<i>Corylus avellana</i>) – likes neutral to limey soils</li> <li>• <b>Alder</b> (<i>Alnus glutinosa</i>)– good for damp/waterside conditions</li> <li>• <b>Aspen</b> (<i>Populus tremula</i>)</li> <li>• <b>Silver birch</b> (<i>Betula pendula</i>)</li> <li>• <b>Downy birch</b> (<i>Betula pubescens</i>) - good for damp/ waterside conditions</li> <li>• <b>Yew</b> (<i>Taxus baccata</i>) – note that ‘fastigiata’ is the upright form (Irish Yew)</li> <li>• <b>Holly</b> (<i>Ilex aquifolium</i>)</li> <li>• <b>Rowan / Mountain ash</b> (<i>Sorbus aucuparia</i>) – flowers and fruit for spring and autumn interest</li> <li>• <b>Whitebeam</b> (<i>Sorbus aria</i>) – flowers and fruit for spring and autumn interest</li> <li>• <b>Crab apple</b> (<i>Malus sylvestris</i>) – flowers and fruit for spring and autumn interest</li> <li>• <b>Wild cherry</b> (<i>Prunus avium</i>) – flowers in spring and colourful fruit and leaves in autumn</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Fruit bushes</b> e.g. the native Raspberry (<i>Rubus idaeus</i>) and Blackberry (<i>Rubus fruticosus</i>). Also Currants and Gooseberries (<i>Ribes</i> spp.).</li> <li>• <b>Ling heather</b> (<i>Calluna vulgaris</i>) - prefers acid/peaty soil conditions</li> <li>• <b>Bell heather</b> (<i>Erica cinerea</i>) - prefers acid/peaty soil conditions</li> <li>• <b>Broom</b> (<i>Cytisus scoparius</i>) terrific colour, blooming through April &amp; May.</li> <li>• <b>Firethorn</b> (<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.</li> <li>• <b>Honeysuckle/Woodbine</b> (<i>Lonicera periclymenum</i>) – a climber with beautifully scented flowers, particularly in the evening when they attract nectar-seeking moths.</li> <li>• <b>Dog rose</b> (<i>Rosa canina</i>) – a climber with beautiful flowers in June and red rosehips in autumn.</li> <li>• <b>Elder</b> (<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)</li> <li>• <b>Spindle tree</b> (<i>Euonymus europaeus</i>) – strikingly beautiful orange seeds carried in bright pink capsules called ‘cardinals’ hats’</li> <li>• <b>Blackthorn</b> (<i>Prunus spinosa</i>) – featuring sloe berries in autumn</li> <li>• <b>Purging Buckthorn</b> (<i>Rhamnus catharticus</i>) – an uncommon shrub – the favourite food plant of the Brimstone butterfly</li> <li>• <b>Alder-buckthorn</b> (<i>Frangula alnus</i>) – a rare native also favoured by the Brimstone butterfly.</li> <li>• <b>Privet</b> (<i>Ligustrum vulgare</i>)</li> <li>• <b>Guelder rose</b> (<i>Viburnum opulus</i>) – beautiful flowers and berries.</li> <li>• <b>Gorse</b> (<i>Ulex europaeus</i>) – the heady, coconut aroma of its bright yellow flowers is the smell of an Irish summer’s day.</li> </ul> |

\*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"> <li>• Native wildlife has adapted alongside these species and so they will typically support more wildlife than exotic species</li> <li>• It conserves our local flora</li> </ul>                                  |
| For native species; only use Irish provenance stock    | <ul style="list-style-type: none"> <li>• They are better suited to the Irish climate</li> <li>• It helps conserve local genetics</li> <li>• Minimise the risk of importing new pests and diseases.</li> <li>• Supports local Irish growers</li> </ul> |

# 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)   |
|--|--|
| <b>Some of the Common Terrestrial Plant IAS</b>  |  |
| Himalayan Balsam ( <i>Impatiens glandulifera</i> )   | <ul style="list-style-type: none"> <li>• Can dominate riverbanks and outcompete native flora</li> </ul>  |
| Japanese knotweed ( <i>Fallopia japonica</i> )   | <ul style="list-style-type: none"> <li>• Can dominate riverbanks and outcompete native flora</li> <li>• Can negatively impact built structures</li> </ul>  |
| Giant Hogweed ( <i>Heracleum mantegazzianum</i> )  | <ul style="list-style-type: none"> <li>• Can dominate riverbanks and outcompete native flora</li> <li>• Can cause serious skin burns to humans</li> </ul>  |
| Giant Rhubarb ( <i>Gunnera tinctoria</i> )   | <ul style="list-style-type: none"> <li>• Can dominate riverbanks and outcompete native flora</li> </ul>  |
| Monbretia ( <i>Crocsmia</i> spp.)  | <ul style="list-style-type: none"> <li>• Can dominate grassy areas and outcompete native ground flora</li> </ul>   |
| Spanish Bluebell ( <i>Hyacinthoides hispanica</i> and hybrids)   | <ul style="list-style-type: none"> <li>• They hybridize with native Bluebells</li> </ul>   |
| Cherry laurel ( <i>Prunus laurocerasus</i> )   | <ul style="list-style-type: none"> <li>• Can take over woodland and prevent native ground flora &amp; saplings from growing.</li> </ul>  |
| <i>Rhododendron ponticum</i>   | <ul style="list-style-type: none"> <li>• Can take over woodland and prevent native ground flora &amp; saplings from growing.</li> </ul>  |
| Pheasant Berry ( <i>Leycesteria Formosa</i> )  | <ul style="list-style-type: none"> <li>• Can take over native woodland and prevent native ground flora &amp; saplings from growing.</li> </ul>   |
| <b>Some of the Common Aquatic Plant IAS</b>  |  |
| <b>Floating pennywort</b> ( <i>Hydrocotyle ranunculoides</i> )   | <ul style="list-style-type: none"> <li>• Can grow up to 20cm per day and may quickly dominate a waterbody.</li> <li>• Forms thick mats which can look like land &amp; so be a danger to people &amp; livestock</li> <li>• Impedes water flow and chokes waterways which can make it difficult for boats and angling and can increase the risk of flooding.</li> <li>• Poses a threat to plants and fish by blocking out light and impeding access to fish feeding and resting spaces.</li> </ul> |
| <b>Curly Leaved Waterweed</b> ( <i>Lagarosiphon major</i> )  | <ul style="list-style-type: none"> <li>• Capable of forming very dense infestations in suitable habitats &amp; occupying the full water column in waters up to 6m deep with significant impacts on native wildlife.</li> <li>• Serious threat to tourism, angling, boating &amp; other recreational pursuits as well as conservation goals.</li> </ul>   |
| <b>Parrot's feather</b> ( <i>Myriophyllum aquaticum</i> , <i>Myriophyllum brasiliense</i> , <i>Myriophyllum proserpinacoides</i> ) | <ul style="list-style-type: none"> <li>• Can produce a thick raft of vegetation.</li> <li>• A fragment as small as 5mm can re-grow.</li> <li>• Poses a threat to plants &amp; fish by blocking out light &amp; reducing oxygen levels.</li> <li>• Can choke waterways so increasing the risk of flooding.</li> </ul>   |
| <b>New Zealand pigmyweed</b> ( <i>Crassula helmsii</i> )   | <ul style="list-style-type: none"> <li>• Can regenerate from tiny fragments &amp; therefore easily takes over new areas.</li> <li>• Forms very dense mats which overgrow native plants and reduces light levels.</li> </ul>  |
| <b>Water primrose</b> ( <i>Ludwigia grandiflora</i> )  | <ul style="list-style-type: none"> <li>• Currently only recorded from one site in Ireland.</li> <li>• Grows into a thick carpet which can out-grow native species and clog waterways.</li> </ul>   |
| <b>Water fern</b> ( <i>Azolla filiculoides</i> )   | <ul style="list-style-type: none"> <li>• Produces a thick mat of floating vegetation.</li> <li>• Danger can lie when people and livestock attempt to walk on it.</li> <li>• The plants are so small, at no bigger than 2.5cm, that it can easily be transported on other plants as a contaminant.</li> <li>• Reduces oxygen levels in the water.</li> </ul>  |



# 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<br>(✓) |
|---|---|-------------|
| <b>Wildflower Meadows</b>                     |   |             |
| 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"> <li>• 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)</li> <li>• Brush cutter</li> <li>• Hand held scythe, hay forks and rakes</li> </ul>  |             |
| 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.   |             |
| <b>Everyday Habitat Management</b>            |   |             |
| 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.  |             |
| <b>Citizen Science &amp; Community Events</b> |   |             |
| 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.

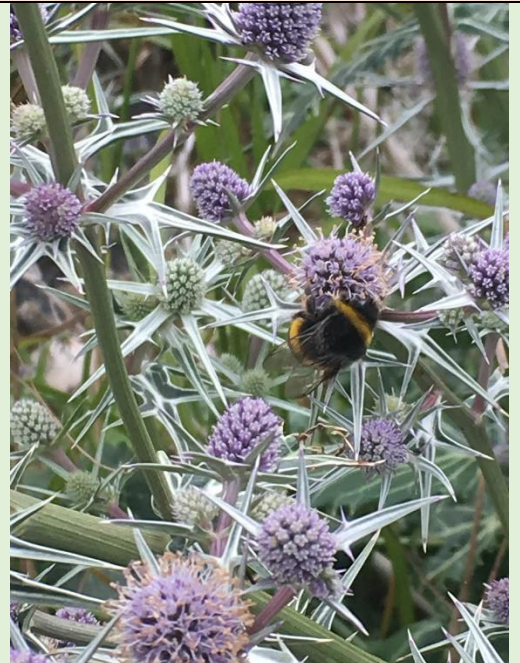


They are a part of our cultural heritage and landscape and can be used to encourage tourism.

# 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 (Ballymore Eustace Responses Only).**

The responses listed a range of different ecosystem services that benefit the village. The most commonly listed benefit was the importance of nature for helping create a healthy environment for us to live in and the benefits for our health and well-being. The responses also recognised the importance of nature for creating a nice living environment for local residents, education, recreation, and its role in tackling climate change.

**Question 3: List your top 3 biodiversity hot spots in your locality (Ballymore Eustace 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 River Liffey and Riverside Walk was the most commonly listed natural heritage site in the village followed by the Kimmeens wildflower meadow on the Naas Road. Several other sites / features were also listed including the trees and hedgerows in the village and surrounding landscape, gardens, residential green spaces and the Old Woolen Mill factory.

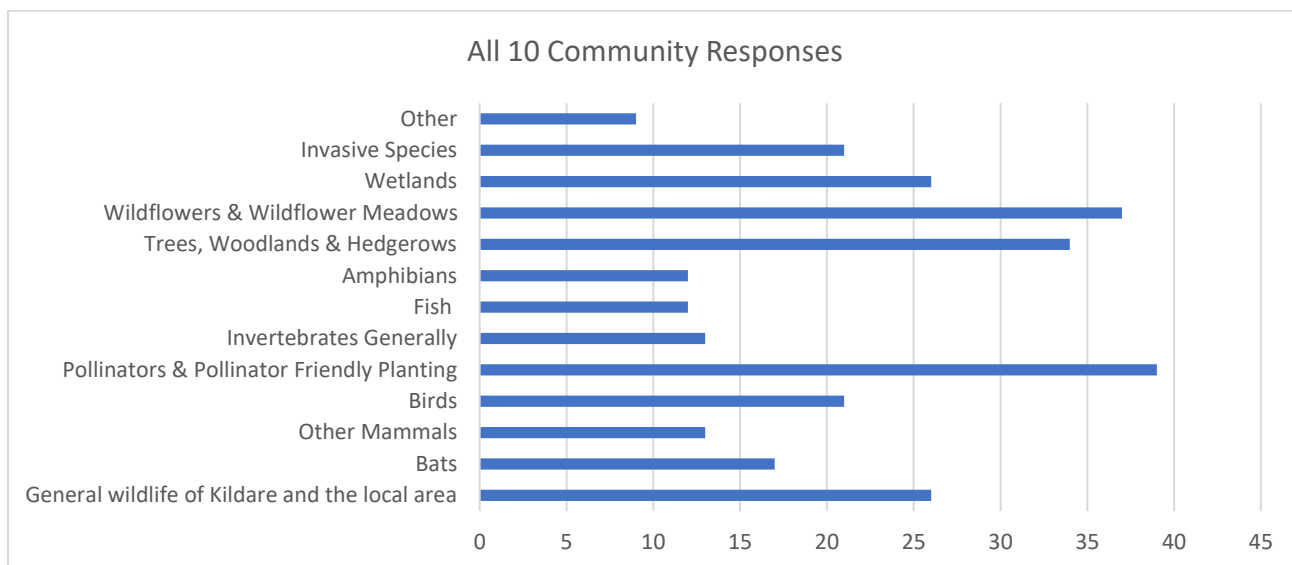
**Question 4: Would you like to get involved in helping biodiversity in your local area? (Ballymore Eustace Responses Only).**

All respondents stated that they would be interested in getting involved in helping biodiversity in Ballymore Eustace. The main ways that the respondents stated that they would like to get involved included making changes in their own gardens, helping to run events, creating more pollinator-friendly flowerbeds, and recording and monitoring wildlife. It was mentioned by one respondent that they would like more direction on how they could help in the village.



**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)**

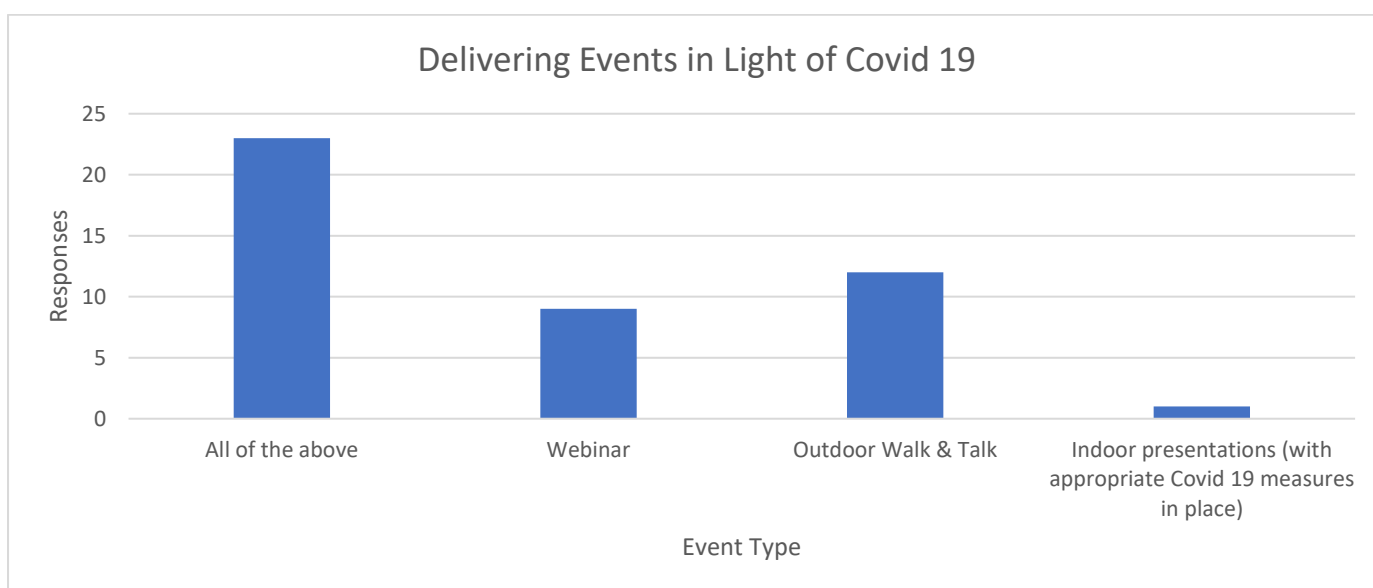
Events related to pollinators and pollinator-friendly planting, wildflowers and wildflower meadows, and trees, woodlands and hedgerows were the most popular responses with each of these receiving over 30 mentions each. Events about general wildlife of Kildare, invasive species, birds and wetlands were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



There was one 'Other' event listed which was a talk on land forms and soil on biodiversity.

**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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Produced by:



Bridge Street Centre, Portlaoise, Co. Laois.

(M) +353 (0)87 7829477 (E) [greenpineconsultants@gmail.com](mailto:greenpineconsultants@gmail.com)

(W) [www.greenpineconsultants.com](http://www.greenpineconsultants.com)



Dr Fiona Mac Gowan, Consultant Ecologist & Botanist

The Cross of Newtown, Ballyroan, Co. Laois.

(M) +353 (0)87 2238262 (E) [flmacgowan@gmail.com](mailto:flmacgowan@gmail.com) (Instagram) macgowan\_ecology