

# **Action Plan for the Large Carder Bee, Skerries, Co. Dublin**

A report for Sustainable Skerries

July 2021





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## Introduction

This plan was created by members of Sustainable Skerries together with Simon Barron of BEC Consultants Ltd. Community Foundation for Ireland (CFI) provided funding for development of the plan through their Environment and Nature Biodiversity programme. In 2019 CFI awarded grants to 56 groups throughout Ireland to enhance biodiversity throughout the country by combining the expertise of qualified ecologists with the skills, experience, knowledge and enthusiasm of local community groups.

Members of Sustainable Skerries had recognised the importance of the local Bumblebee population and one in particular, the Large Carder Bee. Members of the group had recorded where Large Carder Bee occurred in the town submitting records to the All Ireland Pollinator Plan's Bumblebee Monitoring Scheme and developing some expertise and knowledge in the process. Though Large Carder Bee is threatened in Ireland it is also a bee that could utilise urban environments if suitable areas are provided for them. It was therefore decided to focus this Action Plan on the Large Carder Bee.

It is true that other pollinators and biodiversity in Ireland also need help, but if we are able to get the conditions right in Skerries for the Large Carder Bee to flourish, the conditions will also be suitable for many other bees, pollinators and indeed other wildlife. This is because the Large Carder Bee is rather fussy, being selective as to which plants it will feed on, and it does not like to travel too far from its home when searching for food. The knock-on effect of providing suitable feeding and nesting places for this one rather specialised species is that we will also be providing for a range of other species including birds, mammals such as bats and insects, including other pollinators. Therefore with the Large Carder Bee as a flagship species for biodiversity in Skerries, there can be considerable benefits for much of the biodiversity of the town.

The actions proposed are mostly simple and low cost. Anyone who lives in and around Skerries can contribute, including people in apartments with limited outdoor space such as window boxes and planting containers, through to schools, businesses sports clubs and Fingal County Council. The actions involve planting from a range of suitable species, retaining areas as they are where appropriate, amendments to current mowing and cutting regimes, and, possibly most importantly, amending the way we view areas of long grass, Dandelions and Briars.

## The All Ireland Pollinator Plan

The All Ireland Pollinator Plan (AIPP) was launched in 2015 and through this a national pollinator strategy has developed from the ground level up. One of the main results of the AIPP is that we are all more aware that pollinators are in trouble. Most pollination in Ireland is carried out by bees. We have 98 different types of bee: the honeybee, 20 different bumblebees and 77 different solitary bees. We rely on pollinators for the part they play in the production of food by farmers and growers, for pollination of flowers and vegetables in our gardens and the pollination of wildflowers in the landscape which provide food and shelter for birds, mammals and insects.

Through the AIPP a range of guidelines have been prepared aimed at including farmers, community groups, councils, schools, gardeners and sports clubs in this venture. Across all these sectors the same principles are applied and these are also applied to this Species Action Plan. These principles are:

- A Protecting existing sources of food and shelter for pollinators,
- B Altering the frequency of mowing of grassy areas,
- C Adding pollinator friendly planting,
- D Providing nesting habitat,
- E Reducing the use of pesticides
- F Raising public awareness and
- G Tracking progress

The guides prepared by AIPP are all available at <https://pollinators.ie/> together with a wealth of additional information including guides on how to identify different bumblebees, how to create wildlife meadows, where to record actions you have carried out for pollinators and templates for information signs that can be downloaded.

## The Large Carder Bee

Ireland is one of the Large Carder Bee's (*Bombus muscorum*) strongholds but it is a bumblebee whose numbers are in decline. Data collected through the Bumblebee Monitoring Scheme over the years from 2012-2020 show a moderate decline in Ireland. This bee is now largely confined to the coastline, particularly in the east of the country. It is a long-tongued bee which nests on or just under the ground. It collects moss and dry grass to cover the nest, getting its name from this action; 'carding' being the process of disentangling fibres like wool or cotton for further processing. Nest sizes are small with between 40 and 120 workers. The life of the nest is only about 3 months with June-August being the peak months for this bee. The colony will die out during September with the new queen going into hibernation below ground until next spring.

Bumblebees are known to be able to travel several kilometres from their nest when finding food but the Large Carder Bee has been recorded as travelling only 125 metres from its nest which is unusually low. The low mobility of the Large Carder Bee is also thought to be reducing the genetic diversity of the bee with inbreeding being a result of the populations being fragmented. Long-tongued bees, such as the Large Carder Bee are often specialists, favouring a few flowers which have a shape that matches the length of their tongue. Being specialist can make them vulnerable to change.

In 2006 the Large Carder Bee was listed as **Near Threatened** in Ireland, but it has been in decline over the last 15 years since this classification. In 2014 it was classed as **Vulnerable** on the European Bee Red List.

The Annual Newsletter 2020 of the *All Ireland Bumblebee Monitoring Scheme* presents a review of the data collected on Bumblebee populations between 2012 and 2019 and it shows the decline in Large Carder Bee numbers since 2012. The newsletter goes on to say in relation to the Large Carder Bee if we can "take one immediate follow-up action from these results, it is that we need to encourage local level actions where it still remains to ensure it's long-term survival."

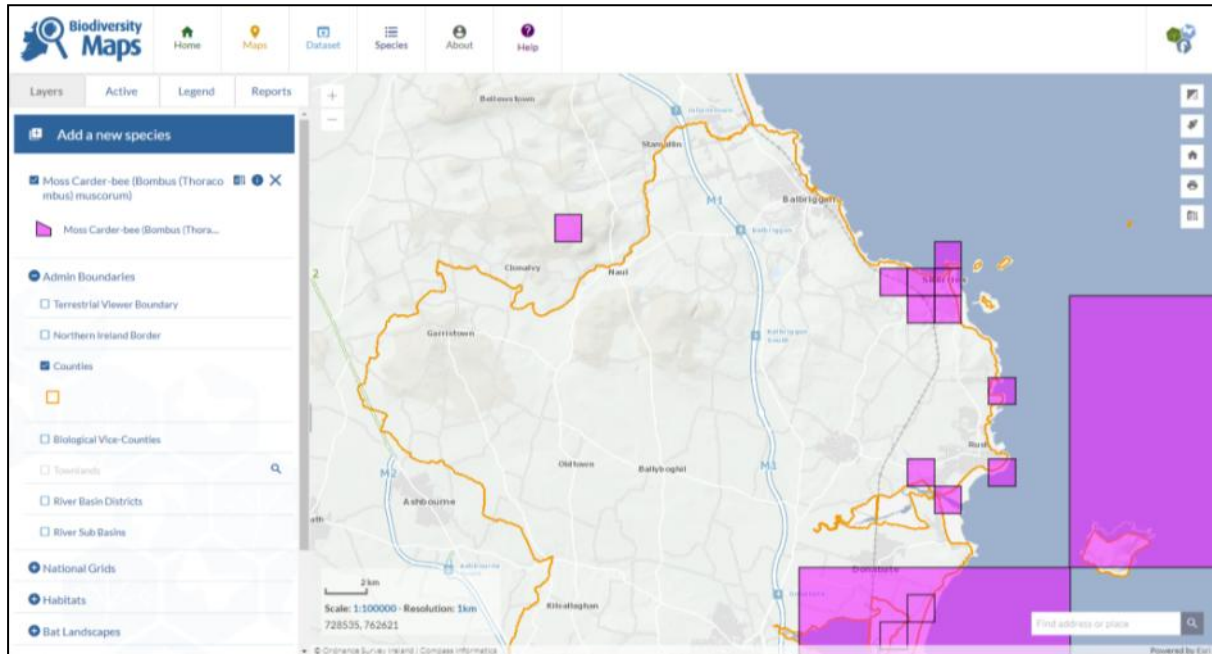
The new version of the AIPP (<https://pollinators.ie/wp-content/uploads/2021/03/FINAL-All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf>) has an action specific for Large Carder Bee (Action 134). This is to "Work to develop initiatives to assist recovery of the near threatened Large Carder Bee". One of the Progress Measures for this Action is to:

*“Work with local authorities and local communities to raise awareness of the Large Carder Bee in these areas and to encourage pollinator-friendly actions to support it.”*

This species action plan sits as a direct response to this Action within the new AIPP. Skerries is one of the places where Large Carder Bee remains and this plan is the local level action aimed at ensuring the bees long-term survival.

## Large Carder Bees in Skerries

It can be seen on the distribution map below that Skerries is the stronghold for Large Carder Bee records in north Fingal. The next record along the coast is at Laytown Dunes.



Map 1: Large Carder Bees records in north Co. Fingal

The places where Large Carder Bee has been recorded within Skerries are shown in the Table below and these locations are shown in Map 2.

Table 1. Records of Large Carder Bees in Skerries

Record	Location	Most recent record	Source
A	Ballast Pit	2020	NBDC/C. Heaseman
B	Ballast Pit pitches	2020	NBDC/C. Heaseman
C	South Strand	2020	NBDC/C. Heaseman
D	South Strand	2020	NBDC/C. Heaseman
E	South Strand	2020	NBDC/C. Heaseman
F	Skerries Allotments	2020	C. Heaseman
G	Kelly's Bay Parade	2019	NBDC/Hugh Early
H	Barnageeragh Road	2020	C. Heaseman





Map 2: Large Carder Bees records in Skerries

Of the areas where Large Carder Bee is found in Skerries the two most important locations are the Ballast Pit (location A) and South Strand (C, D and E). Both these areas are flower-rich, semi-natural habitats which are fundamental to the survival of Large Carder Bee in north Fingal. Maintaining these sites as they are would be the first priority. The Ballast Pit is of particular importance for bees with records of over one third all Irish bee species having been recorded from there. The steep slopes of bare soil provide ideal habitat for mining bees in addition to the **Small Blue Butterfly** which is an Endangered species of butterfly that relies for its survival on the Kidney Vetch plant that grows here.

## Food for the Large Carder Bee

In Skerries the plant species most associated with Large Carder Bee is the Kidney Vetch. In the summer, where the plant is found the Large Carder Bee is generally also found. Propagating and planting Kidney Vetch around the town has the potential to have an enormous positive effect on the Large Carder Bee population as well as for the Endangered butterfly the Small Blue which only feeds on Kidney Vetch. Appendix 2 contains some information gathered from the internet on growing Kidney Vetch. Thankfully it is not just Kidney Vetch which the Large Carder Bee will feed on and this gives scope for some additional options for planting. A list of food plants that are suitable for the Large Carder Bee is given in Table 2 together with the scientific name for those who prefer to use these. This list is based on records submitted to NBDC of the plants that Large Carder Bee were recorded on, together with observations from Charles Heaseman and Tom Gittings in East Cork [www.gittings.ie]. Red Clover and Knapweed were the two plants most frequently recorded with Large Carder Bee in the NBDC records while Tom Gittings and Charles Heaseman both put emphasis on the importance of Kidney Vetch, though Tom does suggest this may simply reflect the fact that it is the most abundant flower in the habitats favoured by the bee. One sighting by Charles Heaseman of Large Carder Bee was on Catmint growing on a small landscape planting area on Barnageeragh Road. This gives encouragement that Large Carder Bee will happily feed on a range of plants if they are provided, though there should be a general preference for planting Kidney Vetch, Red Clover and Knapweed wherever possible.

Table 2: Food plants suitable for Large Carder Bee

Common name	Scientific name
Red Clover	<i>Trifolium pratense</i>
Common Knapweed	<i>Centaurea nigra</i>
Dandelion	<i>Taraxacum</i> agg.
Kidney Vetch	<i>Anthyllis vulneraria</i>
Birds foot trefoil	<i>Lotus corniculatus</i>
Devil's-bit Scabious	<i>Succisa pratensis</i>
White Clover	<i>Trifolium repens</i>
Vetch	<i>Vicia</i> sp
Phacelia	<i>Phacelia</i> sp.
Lavender	<i>Lavendula</i> sp.
Catmint	<i>Nepeta</i> sp.
Deadnettle	<i>Lamium</i> sp.
Bell Heather	<i>Erica cinerea</i>
Sheepsbit	<i>Jasione montana</i>
Sea Mayweed	<i>Tripleurospermum maritimum</i>

## The Skerries Large Carder Bee Corridor

Skerries is fortunate in that it has populations of Large Carder Bee, people in the community who care about bumblebees and are able to identify the different species, and also that there is space within the town to provide food and shelter for them. The main action of this plan is to provide a corridor or series of stepping stones of suitable habitat through the town. This will provide food for the bee (flowers that it likes) and also nesting sites (long grass left through to September). This will allow Large Carder Bees to move through the town, joining up the main existing populations and ensuring a viable local population of Large Carder Bees into the future.

The main spine of the Large Carder Bee Corridor is the Barnageeragh Road. There are also some key areas such as Strand Street and Church Street that will be important in assisting the movement of bees from South Strand into the town, but literally **everywhere** within the town has a part to play.



Map 3: Management areas for the Large Carder Bee

Table 3: Management areas for the Large Carder Bee Corridor. (SS= Sustainable Skerries, STT= Skerries Tidy Towns, FCC = Fingal County Council).

Area	Name	Summary of Actions	Organisations involved
Area 1	Northwestern Coastal Strip	Maintain as is, record pollinators and plants, monitor scrub	SS, STT
Area 2	Barnageeragh Estate	Encourage residents to garden in a pollinator friendly way	SS, STT, Residents
Area 3	Proposed Development	Ensure wildflower planting is suitable for LCB and other pollinators	SS, STT, FCC
Area 4	Educate Together	Continue to manage the area for pollinators	SS, STT, Educate Together
Area 5	Wildflower Meadow	Manage the new wildflower meadow	SS, STT, Educate Together
Area 6	Blackberry Lane	Occasional cutting back of vegetation in the winter	FCC (?)
Area 7	Barnageeragh Road	Alter mowing regime, consider additional bulb planting Adopt a tree, record pollinators and plants	FCC SS, STT
Area 8	Old Ballast Pit	Detailed ecological study Continued recording of pollinators, plants and wildlife	FCC SS, STT
Area 9	Ballast Pit Pitches	Detailed ecological study Continued recording of pollinators, plants and wildlife	FCC SS, STT
Area 10	Greenlawns Pocket	Reduce mowing regime	FCC
Area 11	Mill Pond Grass	Review mowing regime Add plugs of additional plants if needed	FCC SS, STT
Area 12	Mill Stream, Millers Lane	Cut back woody plants	SS, STT
Area 13	Bulb Planting	Delay mowing	FCC
Area 14	Mill Stream Townpark	Reduce mowing regime on southern side of the stream record pollinators and plants	FCC SS, STT
Area 15	Skate Park Hedge	Modify hedge management	FCC
Area 16	Townparks hedges and verges	Reduce mowing and modify hedge management	FCC
Area 17	Townparks Eastern Corner	Review mowing regime Add plugs of additional plants if needed	FCC SS, STT
Area 18	Back Lanes	Maintain as is	SS, STT
Area 19	South Strand Development	Maintain as is	SS, STT
Area 20	South Strand	Maintain as is, record pollinators and plants	SS, STT
Area 21	The Green Bulb Planting	Delay mowing	FCC
Area 22	Southern Coastal Strip	Maintain as is, record pollinators and plants	SS, STT
Area 23	Skerries Allotments	Maintain as is, record pollinators and plants	SS, STT
Area 24	Ballygossan Links Estate	Encourage residents to garden in a pollinator friendly way	SS, STT, Residents

Table 3 summarises the areas that have been identified through Skerries as providing the basis for the corridor and the location of these is shown on Map 3. Additional information is given for each of these areas in Appendix 1 together with photographs of most areas. These areas have been

identified based on review of aerial photographs and Google Street View, field surveys, discussions with members of Sustainable Skerries and review of actions already entered on the AIPP website. They are therefore a mix of locations which includes wildflower and bumblebee-rich habitat, roadside verges, corners of parks and playing fields, school grounds and housing estates where the residents have previously been approached in relation to pollinator friendly gardening. The locations identified include the corners of playing fields, under-used areas of grass and road verges. We have been conscious in the selection of sites to be aware of other users and there will remain plenty of areas for playing sports, walking, relaxing and pucking a ball around.

These areas shown in the Map are likely to represent the minimum of what would be required to provide habitat for the Large Carder Bee in Skerries and these should be considered the starting point. Other areas through the town can be identified and managed in similar ways to some of these identified areas.

## **Actions**

The establishment of the Skerries Large Carder Bee Corridor is the main action of this plan (Action 1 below). There are however a number of other actions which will be needed to compliment the corridor, to measure its effectiveness and to engage people in the plan. These also help to incorporate some of the other principles necessary with any pollinator plan.

### *Action 1 Create the Large Carder Bee Corridor across Skerries*

Details of the Large Carder Bee Corridor are given above and in Appendix 1.

### *Action 2 Engage with Fingal County Council*

Much of the land identified for the Large Carder Bee Corridor is managed by Fingal County Council. It is therefore of great importance to continue consultation with FCC on the proposed changes to management that are presented in this plan and to discuss what can be done. Additionally Fingal County Council is able to provide the oversight needed to assess how the proposals being implemented at Skerries fit in with other similar plans through Fingal. It would be fantastic if the Skerries Large Carder Bee Corridor linked up with one through Balbriggan towards the population in Laytown Co. Meath and towards Rush. It may be that suitable habitat and Large Carder Bees do occur between the towns and FCC may be able to conduct survey work to assess these areas. FCC is also likely to provide assistance with aspects of plans which are being rolled out across Fingal; for instance it may be cost-effective to arrange for a professional nursery to assist with collecting seed and propagating Kidney Vetch plants.

### *Action 3 Add to the Large Carder Bee Corridor*

As noted above the Large Carder Bee Corridor represents the minimum of what is likely to be necessary to provide habitat for the Large Carder Bee to move through Skerries. Literally everywhere within the town has a part to play and the more areas of habitat adapted for the use by Large Carder Bees the more likely it will be for the future of the bee to be secured. The principles of the AIIP as set out earlier in this plan can be applied through many areas of the town, identifying a small corner of a playing field here, the base of hedge there, as well as in gardens, around the bases of trees, planting containers and window boxes. There will still be plenty of areas for people to play ball, relax, walk and run, but also space provided for the Large Carder Bees of Skerries. An example of habitat improvement would be alongside at the green area alongside Northcliffe Heights (see photo). A native hedgerow planted on the inside of the wall here would eventually develop to a habitat that could support vetches and clover which would provide for pollinators.





#### *Action 4 Facilitate training in bee identification and survey skills*

Additional monitoring of bee populations in Skerries through the Bumblebee Monitoring Scheme will assist with monitoring the effects of this plan. Equipping additional surveyors with the knowledge of how to identify and record bumblebees will be of great value to the project and the long-term survival of the Large Carder Bee. IWT People for Bees (<https://iwt.ie/people-for-bees/>) may be able to provide training or NBDC will be able to assist.

#### *Action 5 Collect local seeds to grow*

Seeds can be collected from wildflowers to grow and to distribute through the town. This will maintain populations of flowers from the local area and extend the range of the flowers and bees. The best code of conduct is to pick one in five seeds; then you are leaving 80% of the available seeds. Flowers of importance to Large Carder Bee should be the main focus, particularly Kidney Vetch, Red Clover and Common Knapweed. It will likely be possible to engage the assistance of gardeners from the Skerries Allotments who may have knowledge of storing and propagating seeds.

### *Action 6 Log 'Actions for Pollinators' on the AIPP mapping system*

The Actions for Pollinators page of the AIPP website can be used to track progress of pollinator friendly actions across Skerries. It will also help with identifying gaps in the corridor across the Skerries.

### *Action 7 Continued participation in the Bumblebee Monitoring Scheme*

The Bumblebee Monitoring Scheme was started in 2011 and is coordinated by NBDC. Continuing the monitoring that has been conducted over recent years in Skerries is important so that records can be compared with previous years and any changes in population numbers can be identified.

### *Action 8 Conduct FIT Counts*

Flower-Insect Timed Counts (FIT Counts) record the numbers of pollinators landing on a small patch of flowers over a 10 minute period. They are simple and quick to do and will be invaluable in monitoring the effects of this plan. Members of the local community should be encouraged to conduct FIT Counts in parks and gardens throughout Skerries through social media drives on, for example, the Sustainable Skerries website. It would also be very valuable to conduct some of these counts along the management areas of the Skerries Large Carder Bee Corridor.

### *Action 9 Put up signs*

Signs will inform people of the work being done for the Large Carder Bee in Skerries and the importance of pollinators. Sign will raise awareness of the work being done and may help in people's acceptance of the amended management regime for areas.

### *Action 10 Facilitate or deliver training*

Local workshops can be held to show people how to create nest sites for pollinators, collecting, storing and growing seed, identifying wildflowers, creating wildflower gardens, how to do FIT Counts and any other aspects associated with the plan.

### *Action 11 Liaise with local businesses*

Local businesses have a role to play in the Action Plan, Many are located in the Strand Street and Church Street area which is a key location between South Strand and Townparks. Planters and containers with suitable planting in these locations will be of benefit in assisting Large Carder Bee to move through the areas. Businesses may be able to provide corporate sponsorship for some of the



Actions detailed here. Supervalu in Skerries have agreed to stock a range of pollinator friendly plants and to put up signage indicating their support for the Large Carder Bee project, as well as providing laminated signs for distribution through the town. Such measures are important as the plan becomes more widely known and accepted.

### *Action 12 Review the Plan*

Though bee corridors have been established in other towns in Ireland it is thought the Skerries Large Carder Bee Corridor will be the first species specific corridor to be created. Recording and reviewing what was done will be important in helping other communities establishing similar projects in their towns. This will help secure the future of Large Carder Bees not just in Skerries but across Ireland and contribute to an Island that is genuinely better for biodiversity and for people.

## Appendix 1 The Skerries Large Carder Bee Corridor

Each of the areas identified within the Large Carder Bee Corridor in Map 3 is described below together with any amendments to the management that are considered necessary.

### *Area 1 Northwestern Coastal Strip*

This area represents the stretch of semi-natural coastal habitat with areas of scrub and coastal grassland. These become progressively narrow moving east towards the harbour. There are no records of Large Carder Bee from this area at the moment but in many areas in Ireland the bumblebee is now restricted to coastal areas such as these.



### *Actions*

No active management of these areas is currently necessary; the exposed location tends to keep the sward short. The scrub on the steep cliffs around the cove should be monitored to ensure it is not expanding at the expense of more species diverse wildflowers. 360° camera shots taken at lowtide from fixed points might be helpful with this. These areas should continue to be managed as areas of wildflowers and without the use of herbicides. Signs can be added to show they are managed for pollinators. Plants growing in these areas could be recorded, particularly any that Large Carder Bee feed on, with records submitted to the NBDC website. Ideally the area would be surveyed for Large Carder Bee and other pollinators.

### *Area 2 Barnageeragh Estate*

Barnageeragh Estate is an area identified on the Actions for Pollinators webpage. Skerries Tidy Towns provided a range of pollinator friendly plants and bee boxes to interested residents in 2018. This hugely positive action should be built upon, with residents who showed an interest in gardening for pollinators given further encouragement to manage their gardens, patios and window boxes in a pollinator friendly way. The Estate is a key stepping-stone between the Educate Together National School and the north eastern coastal fringe.

### *Area 3 Proposed Development*

There is a suggestion that this development might include an area with wildflower planting.

### *Actions*

Ensure any wildflower planting is suitable for Large Carder Bees and other pollinators.

### *Area 4 Skerries Educate Together*

The slope to the west of the Skerries Educate Together National School building is a steep, easterly facing grassy slope. It is anticipated this can provide much needed nesting sites for Large Carder Bees as well as flowers for collecting pollen.

### *Actions*

The slope is to be left unmown during the summer. To prevent woody plants from growing it can be mown during the winter months. Ideally this would only be carried out every two to three years and with the cuttings collected. The lower section adjoining the carpark should be mown to maintain a neat, tidy, sharp appearance; the width of a mower being sufficient. A sign should be erected to

make people aware of the habitat value of the area. The soil here may be relatively nutrient poor and it may be suitable for plug planting of some flowers such as Knapweed, Red Clover, Bird's Foot Trefoil and possibly Kidney Vetch.



### *Area 5 Wildflower Meadow*

The area at the front of the Skerries Educate Together National School, grounds is to be managed as a wildflower meadow. During October 2020 the area was mown very short with the clippings raked off. The seeds of native flowering plants collected from the Ballast Pit and Ardgillan were then scattered through the area. These include Red Clover, various Vetches, Campion, Mallow, Knapweed, Poppies, Devil's Bit Scabious and Yellow Rattle. A more detailed account of the work here can be found at [www.sustainableskerries.com](http://www.sustainableskerries.com).

### *Actions*

The area had wildflower seeds scattered on it during the autumn of 2020 and these were evident in early summer 2021 (see photo below). It was particularly encouraging to see Yellow Rattle plants growing. This is a great plant to have in a wildflower meadow and is known as the 'meadow maker', or 'nature's lawnmower'. It is partially parasitic and its roots seek out the roots of grasses and feed on the nutrients in these roots. This suppresses the growth of the grasses and allows more room for other flowers to grow. Wildflower meadows do need management. The area should be cut in late September with the clippings lifted and removed from the area. A second cut and lift may be required in the early spring to remove the winter growth. If clippings are left this can inhibit the growth of less vigorous plants. The raking action also provides gaps for the germination of seeds and reduces nutrients being returned to the soil.





### *Area 6 Blackberry Lane*

The verges either side of the footpath support a rich cover of native flowers and plants. These include White Clover, Alexanders, Bramble, Common Nettle, Creeping Buttercup and Spear Thistle. The tall grasses may also provide nesting locations.

### *Actions*

The area should continue to be managed as a corridor of native plants. Occasional cleanups carried out during the winter months would be welcome as it will keep the area open for people using the path. Ideally the Bramble and tall vegetation would be cut back on a rotation basis with the two sides of the path worked in different years. This ensures there is always some tall, well-developed vegetation available. As with other areas, herbicides should not be used and signs should be put up to let people know that it is an important area for wildlife.

### *Area 7 Barnageeragh Road*

Barnageeragh Road, from the Educate Together NS to the Old Ballast Pit has a wide verge on the southern side. This backs onto the railway line for much of its length providing a broad habitat corridor. It does narrow in places, particularly closer to the Ballast Pit but there remains a reasonable width throughout. The verge has been planted with a range of bulbs including Allium. As shown in the photograph below, the area of the verge at the back beside the trees is mown and the area with the bulbs is mown later in the year once the bulbs have gone over. The long grasses here may provide suitable nesting sites for Large Carder Bee but mowing during the summer would destroy any nests. This could be avoided by delaying mowing until mid-September. Additional pollinator friendly bulbs could be added to the area to extend the availability of forage for pollinators. Leaving an unmown strip at the back of the verge beside the trees would provide undisturbed areas of plants and vegetation for pollinator larvae. Hedgerow species like Knapweed and Bush Vetch would be encouraged by maintaining a broader uncut verge. This should be cut every 2 or 3 years during the winter months to prevent woody plants taking over. The space at the base of trees along the road could also be used for planting pollinator friendly planting also.



### Actions

Delay mowing the bulb area until after the 15<sup>th</sup> of September. Consider narrowing the width of the current mown section towards the back, or ideally mow this just once with the bulb area in September. Allow a strip of undisturbed hedgerow verge to develop at the back beneath the trees which is cut every 2 to 3 years during the winter. Maintain a neat, tidy, sharp appearance alongside the footpath. People like to jog along the grass verge here as it is more forgiving to the feet and knees than the hard footpaths. Keeping the grass short here will allow this to continue.

Record the plants and pollinators occurring on the verge through the year.

Additional bulb planting for the area which would increase the benefit of the area to pollinators could be considered. These might include early flowering species of Crocus, Snowdrops and Grape Hyacinth (*Muscari armeniacum*).

The space at the base of the trees along the Barnageeragh Road could be managed through an 'Adopt a Tree' scheme. Through this, pollinator friendly plants are planted at the base of trees and are maintained by members of the community. This could be as simple as planting Red Clover and, crucially, allowing it to flower. These flowers will provide a pit stop for hungry bees moving through the town. These areas need only be 1 m x 1 m but they can add significantly to the range and area of pollinator friendly planting through the town.







### *Area 8 Old Ballast Pit*

The Old Ballast Pit is of high ecological value. It provides nesting and feeding for a broad range of bee species including the Large Carder Bee and it also supports the Small Blue Butterfly which is listed as Endangered in Ireland. Indeed of the 99 bee species that occur in Ireland around a third of them have been recorded from the Ballast Pit over the years. There are many small holes in the steeper sections where solitary mining bees make their nests. It is therefore an area of considerable biodiversity value. The sparse grassland on the south-facing slope is important as an example of the priority Annex I habitat Calcareous grassland (\*6210). This is a type of species-rich grassland which is of European importance. 'Priority' habitats are rare across Europe and are at risk of disappearing. The only other recorded example of this grassland type in Fingal is at Newbridge Demesne. The Bramble, Ivy and woody shrubs provide nesting areas and food for birds.

As well as being of importance to wildlife the Old Ballast Pit is used by many members of the local community for activities such as walking, cycling, photography, nature watching and informal gatherings. Paths are kept open through the site informally by dog walkers and other users. The non-native plant Winter Heliotrope (*Petasities fragrans*) does occur on the base of the Ballast Pit. Monitoring of this to ensure it does not spread onto the grassland on the southern slopes would be recommended. As Winter Heliotrope can spread through fragments of roots any removal would need to be conducted with care.

Protecting existing areas of value to pollinators is the first priority of any pollinator plan.

### *Actions*

The most important action for Old Ballast Pit is to maintain the area as it is, particularly the grassland on the steep south-facing slope. As a steep, nutrient poor soil it does not need management intervention with the soils inhospitable for larger and courser species. It would be good to keep an eye any scrub areas on the southern slopes, to ensure that these are not extending into the grassland and that Winter Heliotrope is not spreading. Management of the site should not include the use of herbicides.

Signs should be added to indicate the area is being managed for pollinators. Plants growing in the Old Ballast Pit were recorded in May 2021 but, due to a late spring, it was rather early in the season for a full species list. Plants in the area should be recorded with records submitted to the NBDC website. This area is currently surveyed for the Bumblebee Monitoring Scheme but any additional

records of wildlife such as birds, insects, bats and other animals would help to build knowledge of the site.

A detailed ecological survey of the Ballast Pit is one of the actions of the Fingal Biodiversity Action Plan 2010-2015 (FCC 2010) and a survey which brings together all the aspects of this site would be welcomed.

### *Area 9 Ballast Pit pitches*

The slopes around the Ballast Pit Pitches are an extension of those in the Old Ballast Pit. They also support a range of important plant species, bees and butterflies; with Large Carder Bee having been recorded here. This area is also of high conservation value and with a range of species of value to pollinators. There are additionally a number of orchids on the slopes here.

### *Actions*

Once again the management priority here would be to retain the site as it is. Some areas are developing scrub and it should be a target to keep the area largely open. Scrub does provide important nesting and feeding sites for birds but if the slopes scrub over there would be a reduction in the amount of flowers and insects. Scrub cover should therefore not extend beyond what it is at present.

Recording of wildlife here should be conducted as for the Old Ballast Pit and should be included in the survey area for the ecology survey proposed by Fingal County Council.

### *Area 10 Greenlawns Pocket*

A small area of grassland has been identified where it might be possible to change the mowing regime. As it is a relatively steep area and isolated from the main body of the amenity grassland it does not appear of great value for sports or play. The scrub either side provides shelter, it is a defined area and is not used as a walkway. A mown path through the long grass would make it accessible for people to walk through and, combined with the long grass would create some interest here.

This area has been identified as it can act as a stepping-stone between the Ballast Pit and the Mill Pond areas. The aim would be to reduce mowing and create a wildflower meadow. This is described in detail in Action 2 of the *Local communities: Actions to help Pollinators*.



### *Actions*

Reduce the mowing regime. Wait until April to do the first cut – this allows the first flush of Dandelions. During the summer, let the grass grow long but with a path the width of a mower snaking though the grass to encourage people to enjoy the space.

Cut again in early September. However if the grass growth is very strong and the vegetation is falling over under its own weight, cut sooner e.g. July and again in September. After a few years as soil fertility is lowered, this earlier cut will no longer be necessary and one cut at the end of the summer will be enough. The grass cuttings should be removed after each cut to reduce soil fertility over time. Plugs of wildflowers like Knapweed and Scabious grown on from seed can be added in spring or autumn.

### *Area 11 Mill Pond Grass*

Grass to the northeast of the Mill Pond appears to be left long. It is likely that this area could be enhanced for pollinators possibly with planting plugs of wildflowers like Knapweed and Scabious. In the photo below the Mill Pond is out of shot to the right.



### *Actions*

Find out what the current mowing regime for the area is and whether this could be enhanced for pollinators. In the spring and summer record what plants occur and whether there are ones that are pollinator friendly. Add some plugs of additional wildflowers if needed.

### *Area 12 Mill Stream, Miller's Lane*

This strip of land alongside Mill Stream in the southeast corner of the park seems to have great potential for providing nesting and food for pollinators. In the west where the stream emerges into the park the area provides long grasses. The Buddleia should be removed to prevent the area scrubbing over and the Bramble may need occasional control, again to prevent the area from becoming scrub. Though of wildlife value, scrub leads to fewer flowers and insects than an open grassland community. Cutting could be done on a three or four year rotation with some areas being left scrubby and other cut back. In this way there should always be some tall woody vegetation in the locality. Some native Grey Willow could be planted in to provide cover and structure if this is wanted by local residents. This can be done for no cost with cuttings taken from other Grey Willow trees and pushed into the ground. These can then be brought into the rotational cutting once they are established. Woody branches from the cutting could be left as a log pile, but branches and cutting should be removed from the site or mulched to keep the area looking neat.





Further east (downstream), a slight slope running alongside the stream which appears to have a good mix of native plants growing (see photo below). A species list drawn up in late spring of 2021 included the flowering plants Red and White clover, Common Bird's-foot Trefoil, Yarrow, Lesser Trefoil, Ragwort and Oxeye Daisy. Consideration could be given to allowing these plants to spread by reducing the mowing along the top of this slope. Even a one meter width has the potential to double the amount of wildflowers growing here. Obviously a larger area would be even better.



### *Actions*

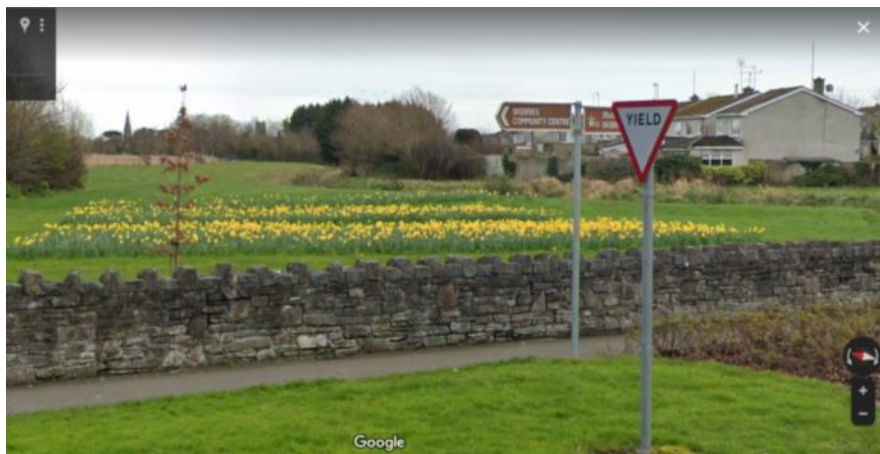
In the winter cut back the woody plants alongside the stream on a rotational basis. Consider planting in some native Grey Willow. Leave a strip along the top of the slope which is mown just once in September.

### *Area 13 Bulb planting*

Bulb planting at this end of the park and also by the footpath from Hillside Gardens to the Dublin Road/Miller's Lane roundabout could provide opportunity for enhancement through a change of mowing. It may also be possible to enhance the bulb planting here for pollinators.

### *Actions*

Delay mowing the bulb area until after the 15<sup>th</sup> of September.



### *Area 14 Mill Stream, Townpark*

Mill Stream. The section of Mill Stream to the east of Skerries Mills provides an existing semi-natural corridor that is likely to provide food and nesting habitat for a range of pollinators. A plant species list of the stream would be of value to record whether species used by Large Carder Bees occur. Increasing the width of the unmown area would be of benefit. As the skate park and playground are to the north of the stream it is likely the unmown area would be more appropriate along the southern side of the stream. Mowing of the area should be delayed until after mid-September.



### *Actions*

Leave unmown as much of the grassland on the southern side of Mill Stream as possible. Delay mowing this until after the 15<sup>th</sup> of September. Record the plants, insects and other wildlife using this wildlife corridor.

### *Area 15 Skate park Hedge*

The hedge to the north of the skate park offers some opportunity for enhancement. The proposals here are based on those given in the 'Managing existing hedgerows for Pollinators' section in the publication *How-to-guide Hedgerows for Pollinators*. Reinforcement planting with native trees such as Hawthorn or Blackthorn would benefit wildlife. To improve the value of the hedge for wildlife it should be trimmed on a two to three year cycle in rotation. This will result in there being some areas producing flowers each year. Cutting hedges between November and January is likely to be least disruptive to pollinators. Vetches and clover occur at the base of the hedge and long grass will provide nesting sites.





### *Actions*

Do not use herbicide in the management of the base of the hedge. Encourage the growth of wildflowers at the base of this hedge. Cut the hedge on a two or three year cycle in rotation. This will result in there being some areas producing flowers each year. Cutting the hedge between November and January is likely to be less disruptive to pollinators.



### *Area 16 Townparks hedges and verges*

Other hedges and verges within Townparks can be managed for the benefit of pollinators including the Large Carder Bee. There is plenty of space to allow tightly managed grassland for sports and recreation and to allow other areas to be less intensively managed for wildlife. The slope at the western end of the car park (shown below) is an example of this. This Google Street View photo taken in April 2017 by Piers Scott, shows Dandelions and Daisies growing on the slope. Other areas around the trees in the car park were also left to grow long in April 2017. The hedges within the park can benefit from unmown strips either side of the hedge. Another hedge within Townparks some distance to the north of the car park also has potential to provide shelter and food for. A broad strip of unmown grass can be left on either side of the hedge.

### *Actions*

Do not use herbicide in the management of the base of the hedges or verges. Allow and encourage the growth of wildflowers at the base of hedges. Hedges can be cut on a two or three year cycle in rotation. This will result in there being some areas producing flowers each year. Cutting the hedge between November and January is likely to be less disruptive to pollinators.





### *Area 17 Townparks Eastern Corner*

This corner of Townparks appears to be being left unmown. It is an important area within Townparks as it is closest to the Large Carder Bee populations at South Strand. It is likely to provide habitat suitable for feeding and nesting sites. The area could be enhanced with plug planting of Knapweed and Scabious.

### *Actions*

Find out what the current mowing regime for the area is and whether this could be enhanced for pollinators. In the spring and summer record what plants occur and whether there are ones that are pollinator friendly. Add some plugs of additional wildflowers if needed.



### *Area 18 Back Lanes*

The Back Lanes parallel to South Strand are also important due to their location as a stepping-stone between Townparks and South Strand. These are managed by the Skerries Tidy Towns for pollinators and provide food for pollinators. Dandelions are allowed to bloom with the first cut delayed until mid-April and no insecticide or herbicide is used in the management of the areas. This area is identified on the Actions for Pollinators webpage. It may be that some Kidney Vetch could be added in suitable areas.



### *Actions*

Continue to maintain these areas for pollinators. Consider planting in some Kidney Vetch. Ensure a sign is in place indicating the management for pollinators.

### *Area 19 South Strand Development*

An area awaiting development on South Strand is managed by Skerries Tidy towns for wildlife with pollinator friendly plants, trees and shrubs. Woodpiles have also been added. This is a great example of an area awaiting development that can be enhanced for wildlife. The current management will not prevent the area from eventually being developed. This area is identified on the Actions for Pollinators webpage.

### *Actions*

Continue to maintain these areas for pollinators. Ensure a sign is in place indicating the management for pollinators.

### *Area 20 South Strand*

The sand dunes of the South Strand form a very important area for wildlife; it is one of the main locations for Large Carder Bee within Skerries. There is relatively high visitor pressure but semi-natural vegetation occurs along the South Strand from Red Island to where Mill Stream enters the sea. The dunes are backed by tightly mown amenity grassland, with a footpath which runs the length of the strand. Walkers keep mainly to the footpath and the tightly mown amenity grassland, though people do cut through the dunes to access the beach and there is an informal path running much of the length of the dunes running parallel to the beach. The South Strand is part of the Bumblebee Monitoring Scheme.

### *Actions*

As with the Ballast Pit the approach to management would be to maintain this as an important area for pollinators. Herbicides should not be used. Signs should be added to indicate the area is being managed for pollinators. Plants growing on the dunes should be recorded with records submitted to the NBDC website. This area is currently surveyed for the Bumblebee Monitoring Scheme but any additional records of wildlife such as birds, insects, and other animals would help to build up knowledge of the site.

### *Area 21 Bulb planting in The Green*

These areas are existing bulb planting in The Green where it may be possible to enhance the planting and delay cutting until mid-September.





### *Area 22 Southern Coastal Strip*

This marks the narrow strip of coastal vegetation which begins here to the south of Skerries and continues along the coast. The area is unlikely to need any active management but it would be of great value to establish if Large Carder Bee occurs on this coastal strip and to record if bee friendly plants are growing here.

#### *Actions*

Ensure that no herbicides are used in the management of the coastal strip. Record bees that are present and wildflowers, particularly those that Large Carder Bees feed on. Submit findings to the NBDC.

### *Area 23 Skerries Allotments*

Large Carder Bees have been recorded at the allotments. Those working the allotments will already benefit from the pollinators that are attracted to the site. It would be great to make the area as welcoming to pollinators as possible by minimising the use of any pesticides, retaining some areas of tall grasses, flowering trees, shrubs and pollinator friendly plants. The expertise of the Skerries Allotments Community is likely to be of value in the propagation food plants for the Large Carder Bee.

### *Area 24 Ballygossan Links Estate*

Ballygossan Links Estate. This area is identified on the Actions for Pollinators webpage. Skerries Tidy Towns provided a range of pollinator friendly plants to interested residents in 2018. Like at the Barnageeragh Estate this hugely positive action should be built upon, with residents who showed an interest in gardening for pollinators given further encouragement to manage their gardens, patios and window boxes in a pollinator friendly way.

## Appendix 2 Growing Kidney Vetch

Kidney Vetch (*Anthyllis vulneraria*) is one of the main food plants for Large Carder Bee in Skerries, as well as being the food plant for Small Blue Butterfly. By growing these delightful native flowers in your garden you would be providing for two Endangered species that are resident to Skerries. It is therefore an aim of the Action Plan to have as much Kidney Vetch, grown from local seed, throughout the town as possible.

There is an excellent guide to collecting and growing wildflower seed from the All Ireland Pollinator Plan team at [https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-2-Seeds\\_FINAL.pdf](https://www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-2-Seeds_FINAL.pdf). Full details on the collection, storage, drying and propagation of seeds can be found there. One point of note from this is not to over collect from a population. The best code of conduct is to pick one in five seed heads, so that you are only taking 20% of the available seeds.

The required skill level for growing Kidney Vetch is given as 'Beginner' on the BBC gardening website [http://www.bbc.co.uk/gardening/plants/plant\\_finder/plant\\_pages/1748.shtml](http://www.bbc.co.uk/gardening/plants/plant_finder/plant_pages/1748.shtml) which is encouraging. This site suggests propagating by softwood cuttings in summer or by seed in autumn.

The plantlife website [https://plantlife.love-wildflowers.org.uk/wildflower\\_garden/grow\\_in\\_the\\_garden/kidney\\_vetch](https://plantlife.love-wildflowers.org.uk/wildflower_garden/grow_in_the_garden/kidney_vetch) suggests plants be positioned in sunny spots with poor, well-drained soil. When planted in rich soil they will grow vigorously but are slow to flower. They are best grown in rockeries or allowed to spill down a bank or a wall. Seeds can be sown when ripe in autumn and benefit from soaking or scarification (rubbing between two pieces of sandpaper) before planting. Although they are perennials they are not long-lived so always best to collect a few seeds to ensure new stock.

At wildlife gardening <https://www.wildlife-gardening.co.uk/Growing%20Wild%20Vetches.htm> it is recommended that vetch seeds are covered with a fine layer of grit after sowing. It is also noted that germination can be slow with the appearance of seedlings staggered over a few months. This site mentions other wildflowers that can be grown in this way. Those favoured by Large Carder Bee include Red Clover, Bird's foot Trefoil and White Clover. Indeed any of the native vetches will be of value to wildlife.

A summary of the requirements and growing conditions for Kidney Vetch is also given on the Shoot Gardening website <https://www.shootgardening.co.uk/plant/anthyllis-vulneraria>.



Over the coming years it is anticipated the residents of Skerries will develop some expertise in propagating and growing Kidney Vetch seeds (and other wildflower seeds) and be in a position to share findings with other community groups. The <https://sustainableskerries.com/> would be a suitable host for this. Posting on the website to remind people when it would be a suitable time of year for collecting seed or planting out etc is also likely to be helpful.

## Appendix 3 Being Grant Ready

It is always good for a community group to have ideas ready such that when funding opportunities arise the ideas can be developed to suit the grant which is available. Potential sources of funding are advertised through the Public Participation Network and the environmental pillar within the PPN is developing with funds becoming available for biodiversity.

Many Community Groups are proficient in applying for grants but a few fundamental pointers would be:

- Keep language positive,
- Keep to the format given on the application form,
- Do your sums and check them,
- Keep a back-up of the text such that it can be adapted, copied and pasted into an additional application form,
- Make contact with the contact person to ensure you are on the right track with your application,
- Match funding is a feature of some applications (LAWPRO). Options for obtaining this include the Corporate Social Responsibility and fund raising,
- Hopefully not a consideration going into the future but, show how the plan has been adapted to Covid 19,
- Get someone to check over the proposal before submitting.



## Appendix 4 Helpful Contacts, Organisations and Websites

- Information on river basin management and the Local Authorities Water Programme (LAWPRO). They also provide grants for water-based projects with grant calls generally being open from November to early February. There is also detail of a range of projects set up by community groups from around the Ireland. The officer for Fingal Thomas Carolan [tcarolan@lawaters.ie](mailto:tcarolan@lawaters.ie) : <http://watersandcommunities.ie/>
- Geohive has an excellent mapviewer where historical maps and aerial photographs can be viewed <http://map.geohive.ie/mapviewer.html>
- A host of invaluable information on promoting pollinator-friendly practices for community groups, sports groups, gardeners, business owners and farmers is available at: <http://pollinators.ie>
- NPWS District Conservation Officer for Dublin can be contacted at 076 100 2593 <https://www.npws.ie/>
- Maps of biodiversity records across Ireland, from National Biodiversity Data Centre: <https://maps.biodiversityireland.ie/Map>
- Submitting biodiversity records to the National Biodiversity Data Centre: <https://records.biodiversityireland.ie/>
- Inland Fisheries Ireland, helpful advice for any inland aquatic issues: <https://www.fisheriesireland.ie>
- A guide to growing Yellow Rattle and developing wildflower meadows is given in <https://www.plantlife.org.uk/uk/discover-wild-plants-nature/how-to-grow-yellow-rattle-rhinanthus-minor> Such a 'meadow' would work equally as well in the corner of a lawn or an unmown strip of grass beside a wall.

## Appendix 5 Useful Apps and Tools

**LeafSnap – Plant Identification** can be used to help identify either leaves or flowers from photographs you have taken. Like many of these apps which are available it is not 100% reliable but should give an indication of which species to consider. There are many other plant identifier apps available.

**iNaturalist** can be helpful if you need help identifying something you have photographed. Your photograph is posted up and other users suggest what it is.

**See It? Say It!** is an App developed by the EPA for recording environmental complaints such as illegal dumping, water pollution, air/odour and noise. The app sends the details to the Local Authority.

**Report Invasive Plants** from Limerick City & County Council is a very simple App to use and is a good introduction to biodiversity recording. It has photographs to help with identifying the four main invasive plant species. Records are sent on to the Local Authority.

**BirdNET** App from Cornell University can be used for identifying bird songs and calls in the field. It is simple to use and gives a level of certainty with any ID. It will help point you in the right direction.

**Biodiversity Data Capture** is the recording App for the National Biodiversity Data Centre. It is useful if you are familiar with the species you are recording as location is recorded at the time of entering the record. Therefore if you have to check the sample in a book at home it is better to enter the record on the online facility.

**All-Ireland Pollinator Plan Newsletter**. Signing up to this is a great way to keep up-to-date with pollinator species to look out for in a particular month, seeing what other groups around the country are doing for pollinators, reminders to keep from mowing the grass during ‘No Mow May’ and keeping up-to-date with development in the All-Ireland Pollinator Plan.

**Limerick European Green Leaf City YouTube Channel** has a great collection of webinars and conferences including Reimagining Irish Rivers, Natural and Inclusive Playspaces, Invasive Species, Ideas for Tidy Towns, Climate Action and Gardening for Biodiversity.

**QGIS** is free mapping software (similar to ARCGIS or Mapinfo) for creating maps such as habitat maps, plans, records of invasive species management and submissions to Tidy Towns adjudicators. It takes some getting used to but may be something where webinar training specific to Tidy Towns could be provided.





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