

# Transport Corridors

## Pilot Pollinator Management Motorway Networks

**Eimear Fox**

Landscape Architect

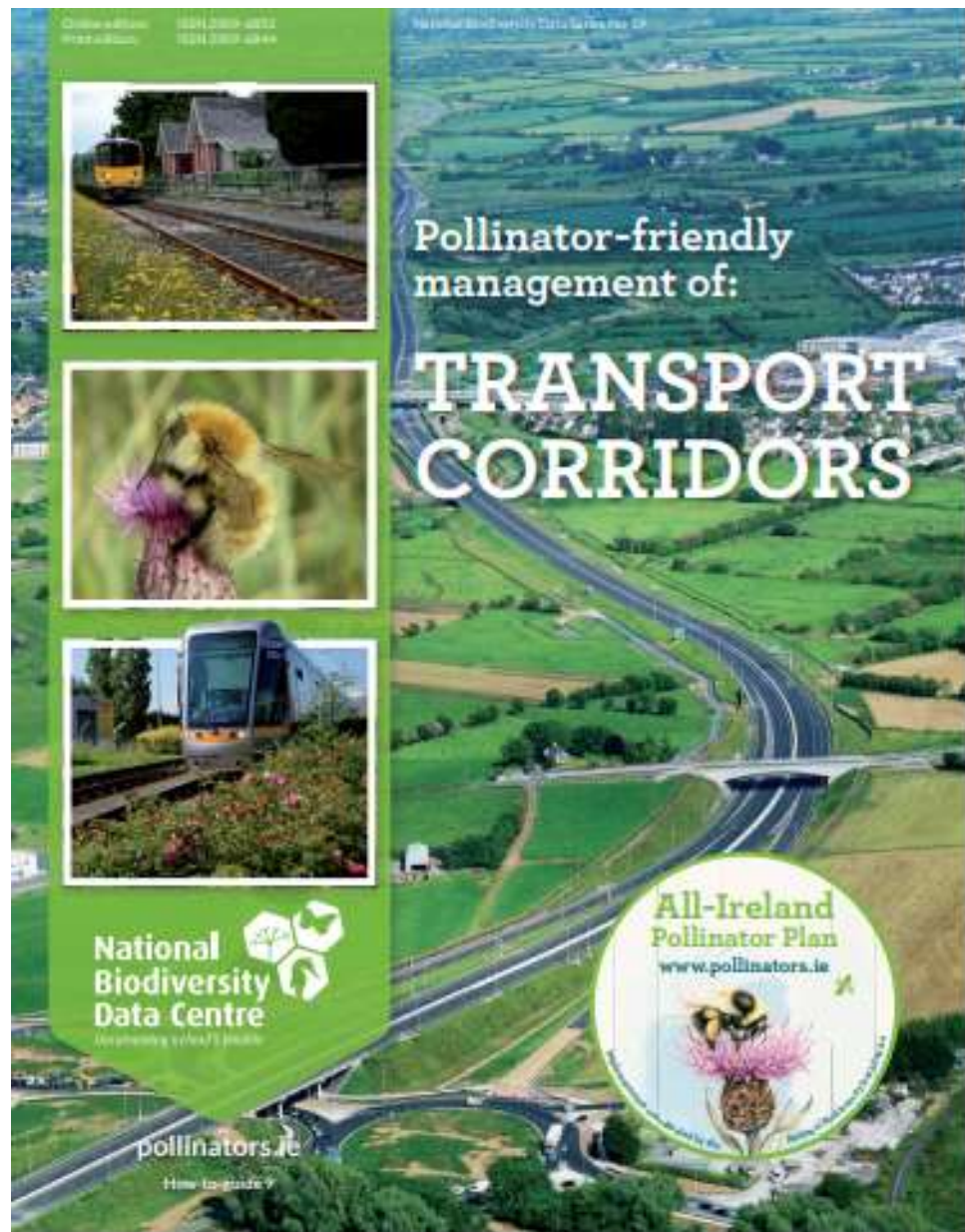
Transport infrastructure Ireland



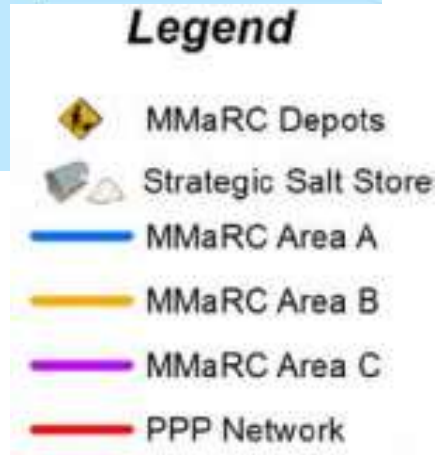
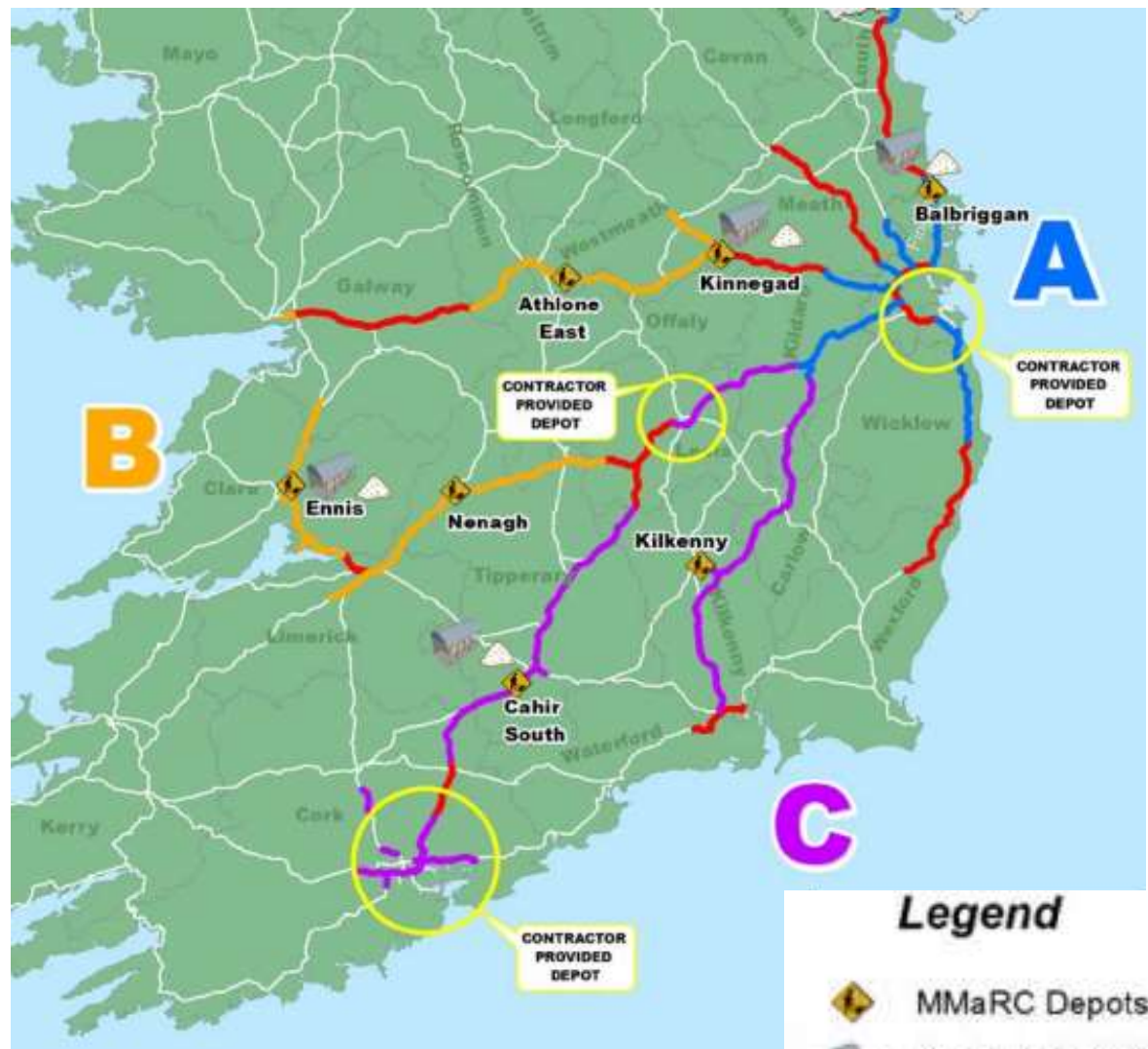
All-Ireland  
Pollinator Plan

The logo for the All-Ireland Pollinator Plan features the text "All-Ireland Pollinator Plan" in a green, sans-serif font. A small green leaf icon is positioned above the word "All-Ireland". A dashed line curves from the bottom right of the text towards the right.

- All Ireland Guide
- TII, Iarnród Éireann, Translink, Dept of Infrastructure NI
- Published September 2019
- No 9 Sector Specific Guide Series
- 21 Actions for Pollinators for the Transport Sector



- 5 year contract +2
- Now into 2nd generation contracts
- 21 Local Authority areas + 10 PPPs
- **Area A** chosen as it is a more visible/urban area with more established landscapes



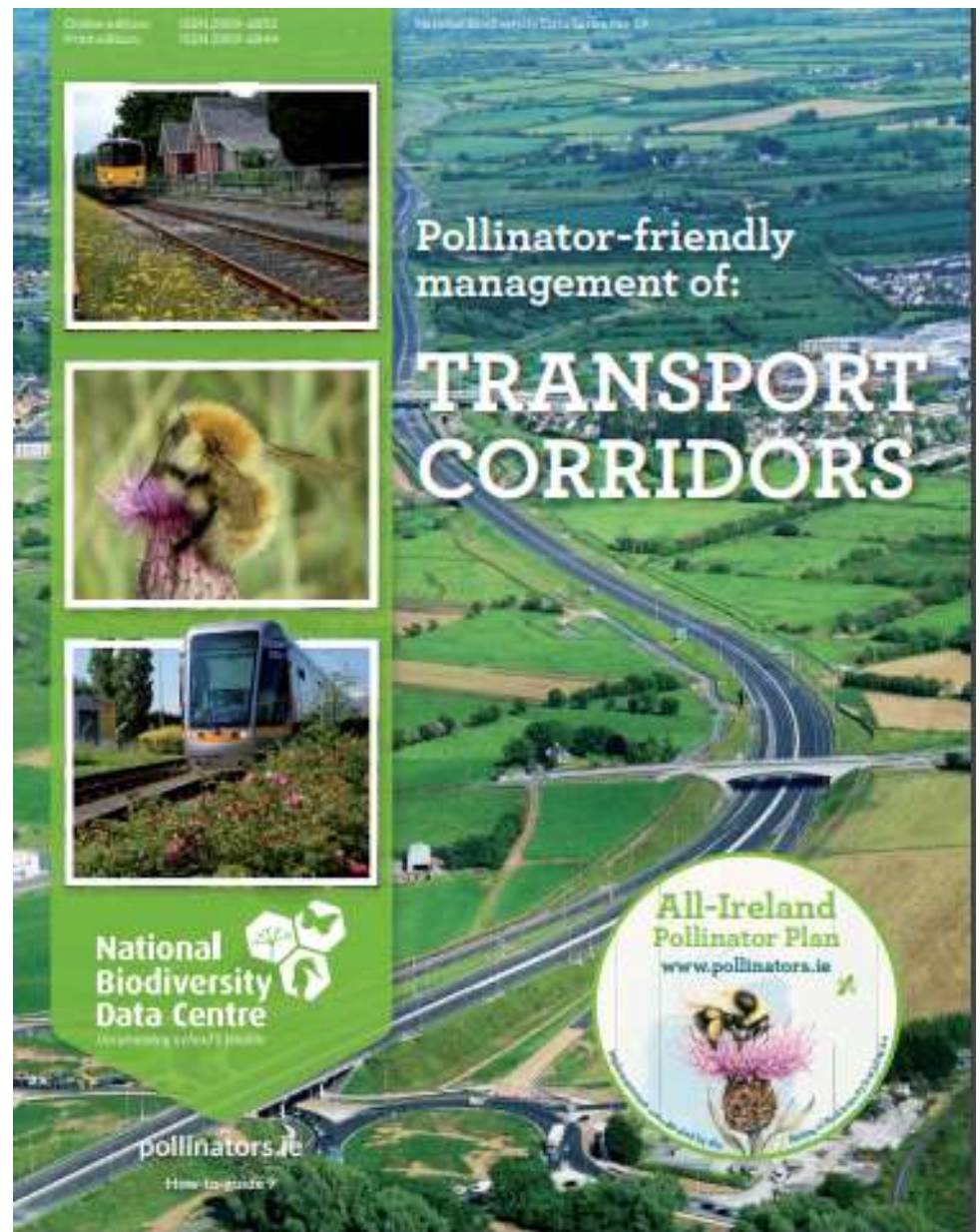
**MMaRC = Motorway Maintenance and Renewal Contracts**

## PILOT TEAM Area A

- TII Network Managers
- TII Landscape Architect
- Atkins MMarC Contract Managers
- Globalvia Jons MMarC Contractors
- Austen Associates , MMarC Landscape Architects

## SCOPE OF INITIAL PILOT

- Grass Cutting
- Weed Spraying

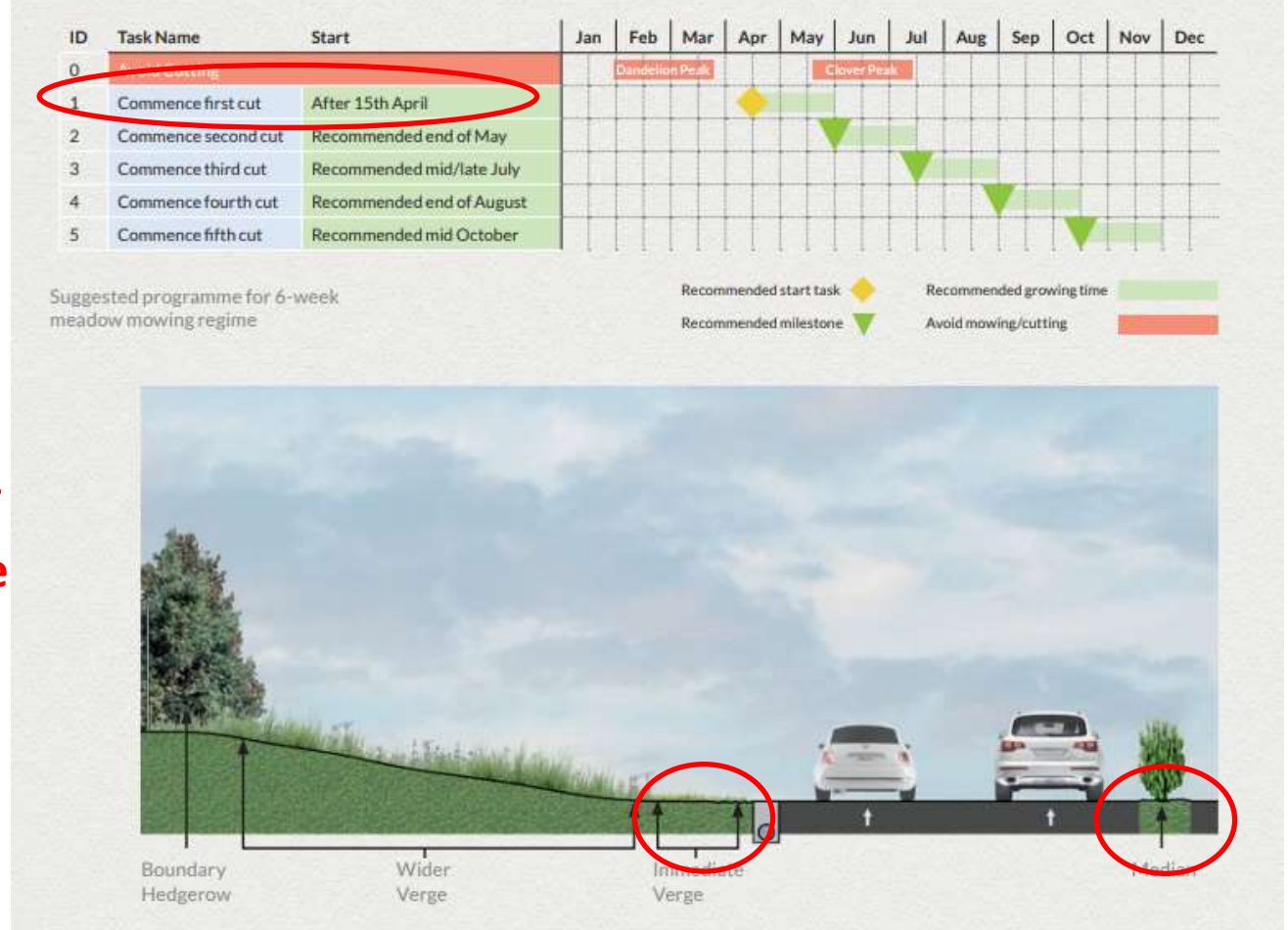


## ACTIONS 7 and 8

**Delay first cut** – date based programme rather than condition / height based programme

**Reduce frequency of cutting to immediate verges**

**Reduce median cuts**



## SCOPE OF INITIAL PILOT

- **Grass Cutting**
- Weed Spraying

**B** Reduce the frequency of mowing of grassy areas

**Action 7:** Manage immediate verge for pollinators

**Action 8:** Manage wider verge area for pollinators

# Action 19

## Reduce the use of Herbicides and Insecticides

Insecticides harm pollinators directly, but equally importantly, the use of herbicides can greatly reduce the wildflowers that pollinators depend on for food, making it hard for them to survive.

All pesticides should be avoided, unless in very specific circumstances, for instance, on hard surfaces for Health and Safety reasons or when dealing with invasive species.



## SCOPE OF INITIAL PILOT

- Grass Cutting
- **Weed Spraying**

## E Reduce the use of pesticides

**Action 19:** Reduce the use of Pesticides  
(Herbicides, fungicides, insecticides)

## ACTION 19

**Team review of why areas were being sprayed** – Safe functioning of the network or to look ‘tidy’?

**Reduce frequency of spraying to tie into weed life cycles rather than contract requirements**



### SCOPE OF INITIAL PILOT

- Grass Cutting
- **Weed Spraying**



Reduce the use of pesticides

**Action 19:** Reduce the use of Pesticides  
(Herbicides, fungicides, insecticides)

## ACTION 19

**Team review of why areas were being sprayed** – Safe functioning of the network or to look ‘tidy’?



Eg for safety inspections the vehicle containment systems need to be visible. Safety considerations.



Eg weed growth is not going to impact on the sign visibility/foundation/stability of the gantry.



## ACTION 19

### Reduce frequency of spraying to tie into weed germinating rather than contract times

There are obligations to control invasive and noxious weeds that needs further examination. Outside of this pilot scope.

### SCOPE OF INITIAL PILOT

- Grass Cutting
- **Weed Spraying**



**CONTROLLING INVASIVE SPECIES:**

For some invasive species, such as Japanese Knotweed, pesticide use is recommended. Please note: the control of invasive species takes precedence over reducing pesticide use.

For more details on managing invasive plant species on road networks refer to TII documents:



**NOXIOUS WEEDS:**

While native plants such as ragwort and native thistles are highly attractive to pollinators they can dominate roadside verges and infest surrounding farmland and sensitive habitats if not controlled. Under Irish law, roadside managers are required to remove and control noxious weeds. When carrying out programmes of eradication for noxious weeds, roadside managers should ensure that they recognise the difference between noxious weeds and other native species that do not cause such problems.



**CONTROLLING GORSE:**

Gorse can pose a risk due to fire hazard and can also pose risk to adjoining sensitive habitat areas as it spreads. As such, Gorse on transport corridors is a management issue, and must be controlled.



## PRINCIPLES and ACTIONS

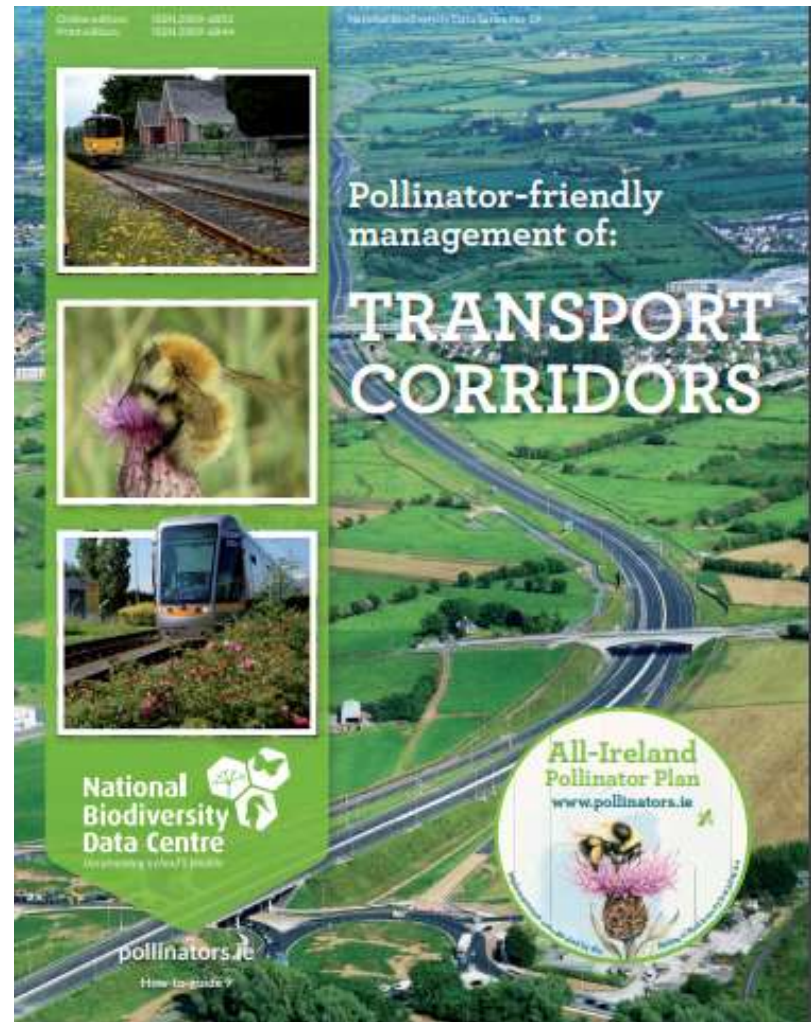
### AGREED and ADOPTED Jan 2020

#### 1. Grass cutting move from condition based maintenance to as per programme

- Grass cutting commence 1<sup>st</sup> April (medians) and 15<sup>th</sup> April (verges and interchanges)
- 2m strip only to be cut for immediate verge
- Agreed trial medians cut only to pavement edge 2m
- Non feature roundabouts to be given a 2m edge cut and central grass island cut once only per year

#### 2. Weed spraying moved from contract requirements to target weed growing patterns

- April / May to prevent weeds emerging
- August / September to prevent weeds seeding



# Globalvia Jons Ltd Pilot Pollinator Plan 2020 Rev 1

Rev 1

Pilot Pollinator Plan 2020

and their landscaping consultants Auzten Associates met to review the All-Ireland Pollinator plan to improve the amount of food available to bees and other pollinators. A series of principles were agreed for the winter and wildflower management season of 2020, they were:

1<sup>st</sup> April (Medians) and 15<sup>th</sup> April (verges and interchanges)

cut to a 2m wide strip. Atkins and Globalvia Jons to do a scoping study on health and safety concerns such as

cut around the circumference. Total cut once per annum.

2m strip along pavement edge. Proposed medians for trial

to be submitted, grass cutting frequency to move from current programme, maximum 5 cuts per annum

to be based maintenance to 2 No. full network sprays to occur in

2020 Pollinator plan was held between the same parties and

Rev 1

Pilot Pollinator Plan 2020

Additional lockdown was implemented during March and April in that grass cutting on the network did not commence until 20<sup>th</sup> April. The network was unmanageable at that late date as had been feared and it is expected that the next year is 15<sup>th</sup> April.

Changes worked well. There were no reported instances of the 2m cut was sufficient to give road users and pedestrians and no complaints were received.



Interchange grass cut

Verge cut, of the 3 areas trialed the N11 CH80-90 was stopped for a 1m wide strip of long grass in the middle. The 2 remaining areas were a nuisance in July and August.

MA will remain as the 2 areas receiving the 2m median cut.

Rev 1

Pilot Pollinator Plan 2020



Median signs on M7 & M11

Work this year was far in excess of that removed in any other year. The pollinator plan was the main reason for this but it was also the result of the 2m cut at interchanges.



M5

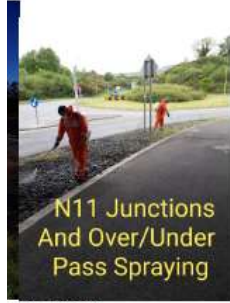
Work in November is sufficient to keep the network in a well

Rev 1

Pilot Pollinator Plan 2020

May and September, the products used were Gallus XL and a spray of 55SL which is a like for like 26% reduction in herbicide usage. The reduction in usage is more significant when the M5 and M6 A Network is taken into account.

There is an increase in weed growth on the network, particularly on the M5. There are complaints from the public and local officials on the M5. This will continue for the 2021 season. Complete records of all



Spraying on M7 & M11

Rev 1

## Pilot Results

(Decided to carry on with trial even with COVID 19 restrictions. But grass cutting did not actually commence until 20<sup>th</sup> April 2020 due to lockdown )

## PRINCIPLES and ACTIONS

### AGREED and ADOPTED

1. Grass cutting move from condition based maintenance to as per programme

- Grass cutting commence 1<sup>st</sup> April (medians) and 15<sup>th</sup> April (verges and interchanges)
- 2m strip only to be cut for immediate verge
- Agreed trial medians cut only to pavement edge 2m
- Non feature roundabouts to be given a 2m edge cut and central grass island cut once only per year

### RESULTS of TRIAL

- Covid late start did not cause grass to be unmanageable so agreed all areas commence 15<sup>th</sup> April next year.
- 5 timed cuts per year rather than condition is sufficient to keep the network maintained.

### REVIEW OF INITIAL PILOT

- **Grass Cutting**
- Weed Spraying

## PRINCIPLES and ACTIONS AGREED and ADOPTED

### 1. Grass cutting move from condition based maintenance to as per programme

- Grass cutting commence 1<sup>st</sup> April (medians) and 15<sup>th</sup> April (verges and interchanges)
- 2m strip only to be cut for immediate verge
- Agreed trial medians cut only to pavement edge 2m
- Non feature roundabouts to be given a 2m edge cut and central grass island cut once only per year

### REVIEW OF INITIAL PILOT

- **Grass Cutting**
- Weed Spraying

## RESULTS of TRIAL

- Covid late start did not cause grass to be unmanageable so agreed all areas commence 15<sup>th</sup> April next year.
- 5 timed cuts per year rather than condition is sufficient to keep the network maintained.
- 2M verge cut resulted in no incidence re sightlines and was sufficient to give impression road was still being maintained.



2m verge and interchange grass cut

## PRINCIPLES and ACTIONS

### AGREED and ADOPTED

1. Grass cutting move from condition based maintenance to as per programme

- Grass cutting commence 1<sup>st</sup> April (medians) and 15<sup>th</sup> April (verges and interchanges)
- 2m strip only to be cut for immediate verge
- Agreed trial medians cut only to pavement edge 2m
- Non feature roundabouts to be given a 2m edge cut and central grass island cut once only per year

### REVIEW OF INITIAL PILOT

- **Grass Cutting**
- Weed Spraying

### RESULTS of TRIAL

- Covid late start did not cause grass to be unmanageable so agreed all areas commence 15<sup>th</sup> April next year.
- 5 timed cuts per year rather than condition is sufficient to keep the network maintained.
- 2M verge cut resulted in no incidence re sightlines and was sufficient to give impression road was still being maintained.
- Not all median areas were successful as depended on the width of medians. Review median cuts based on width.

## PRINCIPLES and ACTIONS

### AGREED and ADOPTED

1. Grass cutting move from condition based maintenance to as per programme

- Grass cutting commence 1<sup>st</sup> April (medians) and 15<sup>th</sup> April (verges and interchanges)
- 2m strip only to be cut for immediate verge
- Agreed trial medians cut only to pavement edge 2m
- Non feature roundabouts to be given a 2m edge cut and central grass island cut once only per year

### RESULTS of TRIAL

- Covid late start did not cause grass to be unmanageable so agreed all areas commence 15<sup>th</sup> April next year.
- 5 timed cuts per year rather than condition is sufficient to keep the network maintained.
- 2M verge cut resulted in no incidence re sightlines and was sufficient to give impression road was still being maintained.
- Not all median areas were successful as depended on the width of medians. Review median cuts based on width.
- Non Feature roundabouts cut to edge only.

### REVIEW OF INITIAL PILOT

- **Grass Cutting**
- Weed Spraying

## PRINCIPLES and ACTIONS AGREED and ADOPTED

2. Weed spraying moved from condition based maintenance to as per programme to target weed growing patterns

- April / May to prevent weeds emerging
- August / September to prevent weeds seeding

## RESULTS of TRIAL

- Weed spaying was carried out as agreed which resulted in a 26% like for like reduction in herbicide use compared to 2019.
- There was a clear increase in weed growth on the network. But no increase in complaints from the public or local officials (Covid?) . Continue with this approach for the 2021 season.

## REVIEW OF INITIAL PILOT

- Grass Cutting
- **Weed Spraying**





# NOXIOUS WEEDS

## IMPACT ON RAGWORT



Before and after Ragwort removal on M3

### CONTROLLING INVASIVE SPECIES:

For some invasive species, such as Japanese Knotweed, pesticide use is recommended. Please note: the control of invasive species takes precedence over reducing pesticide use.

For more details on managing invasive plant species on road networks refer to TII documents:



### NOXIOUS WEEDS:

While native plants such as ragwort and native thistles are highly attractive to pollinators they can dominate roadside verges and infest surrounding farmland and sensitive habitats if not controlled. Under Irish law, roadside managers are required to remove and control noxious weeds. When carrying out programmes of eradication for noxious weeds, roadside managers should ensure that they recognise the difference between noxious weeds and other native species that do not cause such problems.



### CONTROLLING GORSE:

Gorse can pose a risk due to fire hazard and can also pose risk to adjoining sensitive habitat areas as it spreads. As such, Gorse on transport corridors is a management issue, and must be controlled.



The volume of Ragwort removed in 2020 was far in excess of that removed any other year. Was the changed mowing a factor? Review 2021 volumes.

The 5<sup>th</sup> grass cut in 2020 was a full width grass cut. For 2021 this full cut will be moved to 3<sup>rd</sup> cut in June and the impact on Ragwort will be monitored.



Pollinator plan signs on M7 & M11

**Action 20:** Promote the aims of the All-Ireland Pollinator Plan when designing new linear transport schemes, and make staff aware of management actions for pollinators

Strategy

Construction Guidelines

Planning Guidelines

Noise Maps

Environmental Research

Screening for Appropriate  
Assessment

## FAQs

What is TII's Landscape Strategy?

TII landscapes are based on an 'ecological design approach' using native species (but not exclusively) and species with high ecological value. Our aim is to develop a functional, cost effective and healthy landscape that fits within the overall objectives of TII road and rail safety and performance. Our management approach in many areas, once the landscape has established, is a limited intervention and self-sustaining approach. For more information on TII's landscape strategy for our road network, refer to [Guidelines on the Implementation of Landscape Treatments on National Road Schemes in Ireland](#) and [A Guide to Landscape Treatments for National Road Schemes in Ireland](#).

Is TII promoting landscape management for our pollinators?

TII has collaborated with the All Ireland Pollinator Plan in developing a sector-specific guideline to improve the design and landscape management of our Transport Corridors for our pollinators but also for overall biodiversity. It is planned to implement the actions of the plan over the network on a phased basis. For example, as part of our grassland management, TII is committed to reducing the frequency of grass mowing in certain areas in order to enhance the value of our grass areas for wildlife and biodiversity. The Guide can be found at [Pollinator Friendly Management of Transport Corridors](#).

Why aren't there more wildflowers in TII unmown grass banks and verges?

TII grasslands are managed as self-sustaining meadows where the overall value of the grass areas for all biodiversity is considered. While some areas are managed specifically for wild flowers with annual cuts, most areas are managed as longer grass meadows. These require less frequent cuts, perhaps only one cut per three to five years. Although maybe not as colourful as wildflower areas, these grasslands support many species of insect and grasses and provide important undisturbed nesting sites, food sources and shelter.

# THANK YOU

**Eimear Fox**

Landscape Architect



eimear.fox@tii.ie