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Transport Research Partners

SEUPB Interreg VA Programmes - Sustainable Transport Impact Evaluation

Annual Report

December 2020

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Content

1. Executive Summary

Sustainable Transport plays a significant role in economic and social mobility. This role is recognised and enhanced through a series of supportive and developmental programmes, including the Interreg VA programme which supports projects in the border regions of Ireland, Northern Ireland and Scotland, through its Sustainable Transport priority, priority 3.

In this document we set out our annual report and evaluation of project delivery under this priority. This evaluation follows and may be read in conjunction with our previous annual reports, the most recent for 2019 (document reference: 19123101JC).

The evaluation assesses progress in each of five projects, being:

- Carlingford Lough Greenway (CLG)[1];
- Ulster Canal Greenway (UCG);
- North West Greenways Network, route 1 (NWG);
- North West Multi-Modal Transportation Hub (NWH); and
- FASTER Electric vehicle project (FST)[2].

The projects are focused across a range of new infrastructure provision, including greenways (3 projects), Public Transport (PT) interchange, and Electric Vehicle (EV) charging facilities. Each of the projects are supported with the intent to encourage sustainable development, and evaluated on the basis of project Outputs and Results Indicators (O/RI), that include the delivery of the infrastructure itself, and the measured increases in sustainable transport / travel, including walking and cycling, EV and PT use.

The past 12 months have also coincided with a significant change in travel patterns and transport use arising from the Covid-19 pandemic that have had, and will continue to have, a major impact on infrastructure projects, including those reviewed in this document. Impacts arise from compulsory lockdown(s) that have accompanied the pandemic, with consequent impacts on travel to work, tourism activities, and the nature of employment itself. In light of these changes we have undertaken a review of covid impacts on travel demand at project start and target years reported below.

Demand values measured in this document relate to those that can be predicted for the opening date(s) of the infrastructure, and are included for non-Covid and post-Covid circumstances. Baseline analysis can also refer to the predictions included in the initial project applications, as well as the values contained in the cooperation document, being based on response values from the 2011 census. We therefore distinguish the measurements of base trip counts to be specific to the circumstances reported and observed at the point of our analysis. Thus Non-Covid analysis, relates to the circumstances that would have occurred had Covid not happened. Post-Covid analysis

[1] Project identifier acronyms are specific to our analyses and may differ from acronyms applied outside our work.
[2] FASTER is a newly approved project, letter of offer dated 1st October 2020, and does not appear in our previous reporting.

relates to demand as measurable in light of a current assessment of the pandemic. It is important to note that the extent of and recovery from Covid remains uncertain at the time of writing.

Our analysis makes use of survey data collected in the course of and parallel to our work, reported below. Three surveys were completed:

- A TRP survey of all projects supported under the priority (Project Surveys);
- A TRP survey of members of the public specific to greenway project locations (Public Surveys); and
- A University of Hertfordshire survey of public behaviour specific to the border crossing points adjacent to project locations (Herts Survey).

Public and Interreg project surveys were completed in the latter party of 2020 and are used to inform demand measurement in post-covid scenarios. We also use public survey data collected by the University of Hertfordshire in 2019, prior to pandemic lock-downs, to inform non-covid analysis, as set out below. Project surveys and public surveys undertaken by our team are included in the appendices of this document.

The analysis includes a number of assumptions and third party data as a part of the calculations set out in this document. Third party datasets include work completed by the University of Hertfordshire for the SEUPB in 2019, with the support of our project team; and external datasets including 2020 Failte Ireland analysis of tourism recovery post Covid.

Analysis also includes public survey responses from our own survey completed in the Autumn of 2020.

As the course of the pandemic, and any associated recovery, were not certain at the time of our surveys, responses should be assumed to represent a best estimate in the view of the respondent at the time of the survey.

It is also notable that the pandemic has intensified in the period since the surveys were undertaken, and it is likely that this ‘downturn’ may have a greater impact on trip reduction than was first anticipated. We would therefore conclude that the analysis detailed below may represent a best case scenario, and would anticipate that lower trip demand may be a more likely result of the current pandemic trajectory.

Some comfort may be drawn from the continued expansion of vaccination programmes in both Ireland and Northern Ireland, though it remains unclear to what extent these may impact on tourism traffic numbers. Detail of data sources, including known assumptions are included in the text below.

2. Context and external factors

In setting out our review we feel it is important to highlight the changing circumstances under which projects are being delivered, providing the context and (measurable) externalities[3] affecting the projects. The most significant external factor being the impact of Covid on the travel patterns, referred to above.

In summary, Covid constraints were first applied around March 2020 in both Ireland and Northern Ireland, and have been in place throughout the period since. Covid constraints restrict individual movement and permitted trading, with some variation by jurisdiction. The most severe restrictions include 'lockdowns' in which individuals are mandated / encouraged to remain at home with similarly severe limitations applied to many business and entertainment activities. Over time these constraints have evolved into a system of tiered restrictions, which remain in place at the time of writing, and have been increasing in severity in recent weeks to reflect the a growing level of infection (second and third 'waves').

Despite a number of relaxations throughout the year, the net effect has been a tightening restriction on movement with significant barriers to work and tourism use of infrastructure. The pandemic has also impacted on the ability of projects to physically deliver construction elements of their work, and led to a fundamental, and permanent, change to the patterns of work in most sectors.

At the time of writing, the pandemic has entered its most serious phase to date, with absolute bans on movement affecting Interreg projects, and an associated economic impact that could not have been anticipated in the developmental and approval stages of the projects. We have therefore dedicated a significant proportion of our work to the evaluation of pandemic impacts on Interreg projects within the sustainable transport priority, reported in subsequent sections of this document; and conclude on the consequential effects and potential outcomes of the Interreg VA supported projects below. Our work includes two survey exercises, the first of the projects themselves, and the second public surveys completed locally to the projects to capture the effects of covid constraints on the potential use of project infrastructure. These are referred to as Interreg Project Teams and Public surveys respectively.

It is also important to highlight that the course and recovery from the pandemic remains unclear. While it is possible, and appropriate, to speculate on the potential outcomes of any recovery, the timing and speed of any such recovery is likely to continue to be uncertain. We have therefore sought to address a series of scenarios reflecting potential outcomes, as reported below.

[3] The concept of externalities relates to factors outwith the control of the project that will, nevertheless, impact on the project itself. Not all externalities can be measured, and many / most are subject to change reflecting wider social and economic drivers.

2.1 Project context

The precise impacts of the pandemic vary by project, although some common themes are observed, notably in relation to potential use, and in the ability of the project to complete construction. Separate Public and Project Teams Surveys undertaken to establish both the ability of a project to complete construction and potential public use once open. Both appear related to the underlying ability of the market to function within and following a pandemic. Each of these elements will be project specific, discussed below, with the severity of change being a result of the pandemic and its duration.

By summer 2020 the ongoing nature of the pandemic was becoming apparent, with it appearing likely that disruption would not be limited to a temporary divergence from everyday activity. The evaluation team commenced surveys with the aim of identifying the nature of covid impacts by project to date, and potential impacts should the pandemic continue unabated.

Project surveys were circulated in Autumn 2020 to all priority 3 projects with the exception of the FST project. The project survey was designed to complement public behaviour surveys, also focused on the impacts of Covid 19, to follow after the project team surveys. The integration of project and public surveys being intended to provide a comprehensive snapshot of responses to and impact of the pandemic at the time of the analysis.

Impacts were identified and categorised by impact factor, to include, but not be limited to:

- Travel demand, including the availability of work for commuting;
- changes in the nature of work, including remote and teleworking;
- Economic effects, including the ability and/or desire to spend on consumer goods, entertainment or leisure activities; and
- Physical constraints, including lockdowns and localised health measures.

The ongoing nature of the pandemic was taken into account at the time of survey development, with the survey being designed for further application (longitudinal analysis).

The survey was split into sections:

- Base use, related to behaviour had Covid not been an issue;
- Operations during the pandemic and consequences on deliverables; and
- The situation with and likely to follow from Covid 19.

The latter, forward looking analysis, includes the capacity of the project to adapt to the changing circumstances; and longer term implications on the programme area. Each of the four Interreg VA projects within our assessment area at the time of the survey were asked to respond, and each have done so. The following sections reviewing those responses.

2.1.1 Initial use

The base relates, in this instance, to the status of the project(s) prior to any effects resulting from the pandemic. This allows us to isolate the effects of the pandemic on project development. Survey data collected by the University of Hertfordshire relate to travel patterns prior to the pandemic, discussed below.

Our own surveys were undertaken during the lockdown and reflect changes in behaviour by the public, and limitations felt by the projects as a result of the pandemic.

Not all issues arise from or are associated with the pandemic, although a majority of issues are exacerbated by it. All three of the greenway projects reported issues associated with construction cost and budget deficits existing prior to Covid, though this situation was felt to be made worse by the pandemic. Land acquisition had been an issue for some, and all three greenways stated that they had notified the SEUPB in respect of their budgetary position prior to the pandemic.

2.1.2 Immediate Covid impacts

The second part of the project survey concentrated on impacts of the pandemic that were apparent at the time of the review. Responses split between two major areas of impact, delivery time, and delivery cost; suggesting that it would be necessary to review each of these areas as a consequence of the pandemic.

Time related impacts included delays in getting construction workers out on site, and delays in the process itself. These included delays to the planning permission process, estimated at an additional six weeks by one of the projects, while another simply stated they would not be able to put documents on public display until Covid restrictions were lifted.

All projects reported that their teams had moved to home based working, while some sought to estimate revised dates for deliverables. These may need to be revisited by projects given the ongoing constraints and restrictions that remain in place. The ability to undertake face-to-face activities remains highly limited at the time of writing, which might suggest an additional 6 months delay on top of the estimates given at the time of the survey[4], though project responses appeared more optimistic at the time of the review. Three out of the four projects responded that they anticipated no additional delay from the time of the review, though one of the greenways suggested the constraints would (had) created ‘rigidity” in the relationships with stakeholders.

The divergence between optimism, in responses at the time of review, and actual constraints that have remained in place increase the need to observe actual behaviour over time, discussed in greater detail in section 4, below.

[4] The suggested additional 6 month delay is based on rapid removal of restrictions, in early 2021. Any such loosening of constraint is speculative.

2.1.3 Consequences on deliverables

Immediate consequences, of Covid, were felt to relate to the ability of the projects to deliver on output and results indicators given the circumstances at the time of the review. A number of the projects suggested that the pandemic would reduce their ability to deliver in specific areas, while others were more cautious suggesting an element of uncertainty would continue - effectively that it was too early to be precise as to the impact of the lockdowns.

All four projects remained vague in the assessment of final impacts, with only one, UCG, indicating that it would be able to deliver fully, this itself being predicated on being able to make up a finding shortfall.

2.1.4 Budget consequences

All three greenways reported that Covid would impact negatively on their budgets. The included, in some instances, significant cost shortfalls that were likely to impact in the ability(ies) of the projects to deliver.

The extent of these shortfalls were not fully reported, but some of the projects suggested these may be substantial. The North West multimodal Hub did not advised any shortfall at the time of the review.

Wider impacts were also identified associated with the number of users, including the financial impacts of lower passengers in the case of NWH, though the nature of these impacts would vary dependent on: a) the extent of passenger trip reductions; and b) the financial dependence of the project delivery on such income.

2.1.5 Operational Consequences and review

In addition to the budgetary impacts of the pandemic, the projects survey also addressed the operational and administration consequences. Questions addressed both the immediate working arrangements and the operational support that may be required of the SEUPB as a result of the pandemic.

All four of the projects reported a move from office to home working amongst the project staff, while those with construction activities underway also discussed the impact of the pandemic on their contractors. Access to potential construction sites were limited by the pandemic, while the NWH reported a need for additional Covid awareness training amongst contractors and site staff. All of the projects reported that communications channels had been improved by the move to technology and communications platforms.

Two major issues appear throughout the survey responses, that the pandemic has impacts on the costs of delivering the projects, and the time that will be required to deliver them.

These are summarised as budgetary shortfalls, and an inability to meet some of the deadlines, though not all projects face the same extent of time delay or budgetary shortfall.

A number of projects highlight issues specific to the nature of the infrastructure being delivered, with the NWG suggesting that a reduction in the number of kms delivered may be necessary. The NWH and UCG both highlighted an underlying issue in the numbers of users, likely to impact on results indicators, reflecting the reduction in passengers and underlying tourism demand respectively. The same effects are likely to impact in all projects, with a potential in each instance for results indicators to be missed as a result.

Operational implications of the pandemic relate both to the final delivery within the current Interreg programme and any subsequent structural programmes. These include a need to (re)calibrate base use and the expectations of outcomes to reflect the market equilibrium visible in and likely to follow from the pandemic. It is also important to highlight the lockdowns remain of unknown longevity, and appear more serious at the time of writing than at the time of the original surveys. As conclusions drawn in this document are necessarily made on the basis of the observable conditions at the time of analysis, these will need to be reviewed, in our view, in light of further and ongoing impacts of the pandemic.

2.2 Public context

Having established the impacts of Covid that applied directly to project operations, it became apparent that longer term impacts were likely to arise from the public response to the pandemic. This is best illustrated in terms of changes in demand for travel and transport infrastructure, mirroring comments from the NWH that a financial impact was likely to follow from a reduction in the use of public transport associated with the lockdown. In the same vein, it may also be suggested that other elements of infrastructure use would be affected, that may relate to numbers of users, frequency and localised expenditures, upon which many of the projects were developed and supported. In short many of the assumptions, including estimated levels of use were calculated prior to the pandemic and would be unlikely to remain valid given changes in travel patterns arising from the pandemic.

A decision was made, therefore, to undertake an analysis of behavioural changes amongst the public insofar as these were likely to affect the use of the Interreg projects under review. Data was collected in a public survey and used to inform assessment of demand for each project.

Public survey responses indicated a change in the use of all transport modes, and a likely ongoing impact on the use of Interreg project infrastructure. Survey findings indicated a rapid decline in travel demand for commuting; a significant reduction in tourism based travel; and an increase in the number of local walking and cycling activities, mainly for exercise as leisure.

Pubic survey data was also used to model demand variance, using a cross-classification model, to inform trip numbers in both non-covid and post-covid scenarios. The use of this form of model is common in transportation analysis, and expressed using the formula:

Trips for zone *i* (SAP/Ward = *i*)

$$T_i = \sum_{\forall k} n_k^i g_k$$

Where:

n_k^i is the number of households or individuals in category k, and
g_k is the average rate of trip generation for category k

Data collected in our public survey are be compared with previous datasets collected by the University of Hertfordshire in 2019, providing a comparison of pre- and post-pandemic travel behaviour, discussed in detail below.

Time constraints and project prioritisation have limited the numbers of surveys completed, though statistically valid samples have been collected for each of the greenway projects, discussed below. Demand patterns for the NWH and Electric Vehicle projects reflect the differing natures of these two projects compared to a common pattern for greenways, requiring an adapted survey instrument to be developed and run. It is also noted that the FST electric vehicle project commenced operation after the original survey completion, impacting on the timescale within which surveys could be completed. Given the time constraints it was agreed that a further tranche of surveys will be released in early 2021 to capture responses to the multi-modal hub and electric vehicle users cohorts and reported on shortly thereafter.

2.2.1 Population areas

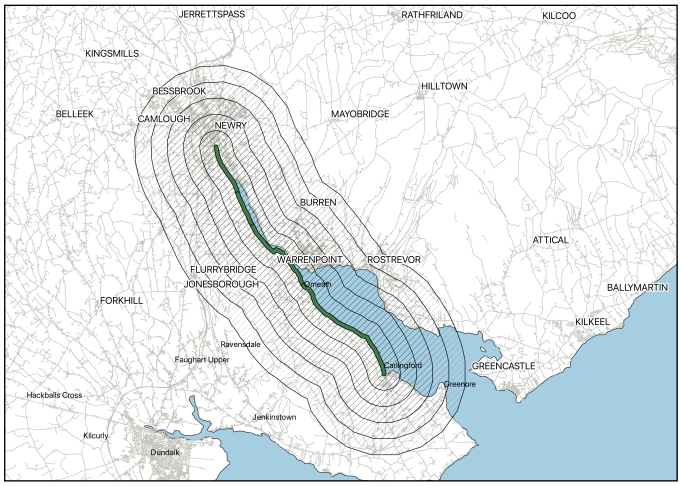
Survey responses were sought from members of the public felt likely to make use of the infrastructure under review. A catchment area was defined in relation to the frequency of use (of a project) by distance from the project, though this, in turn, required a wider area response.

The survey targeted a response for each of the projects under review, based on the counties served by each of the projects, and achieved through a targeted invitation by project area. Respondents were asked to identify home locations by town, county, or jurisdiction, with detailed responses based on location access to the project infrastructure.

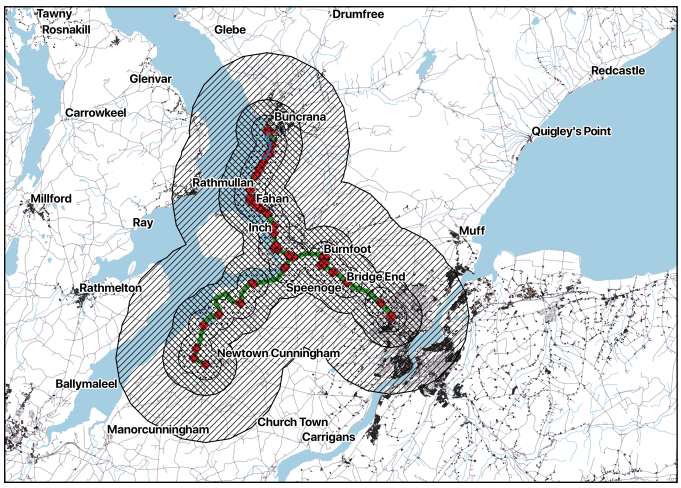
A catchment area was defined for each of the projects based on survey responses, within which ‘local’ users would be likely to consider the greenway a viable route to a destination or attractive place to walk or cycle for leisure. Responses allowed for the creation of an attractiveness measure based on distance, being the extent to which use declines by

distance, defined as ‘distance decay’ rates within catchment bands illustrated in maps 1-3, below. Topographical constraints were also included as an additional constrain layer, preventing the measure of journeys that were impossible, for example where a physical barrier such as a river or waterway prevented travel or made it unlikely.

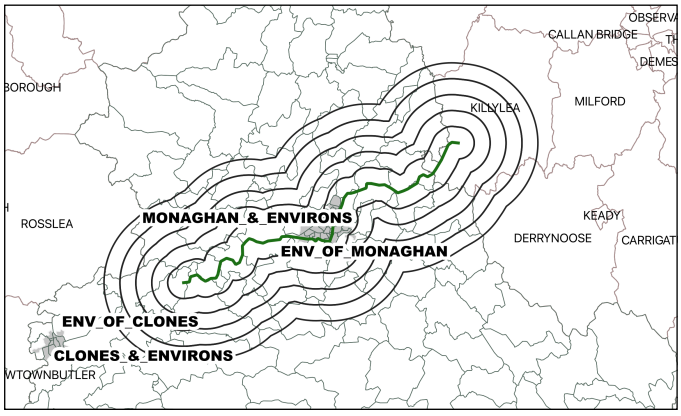
Map 1: Carlingford Lough Greenway route and distance contours



Map 2: Ulster Canal Greenway route and distance contours



Map 3: North West Greenway route and distance contours



Having established a catchment area and distance contours, a demographic data overlay was applied for each of the greenways, allowing for the identification of trip origins.

Population characteristics with the contour areas were established using statistical agency data from NISRA and CSO and tabulated for each project, resulting datasets are included in the appendices of this document and summarised in table 1.

Table 1: Population count within catchment areas

	Carlingford Lough Greenway		Ulster Canal Greenway		North West Greenway	
	Total population all ages within adjacent SAP and WARDs	Total population within 5kms	Total population all ages within adjacent SAP and WARDs	Total population within 5kms	Total population all ages within adjacent SAP and WARDs	Total population within 5kms
Northern Ireland	48,633	32,330	10,626	2,114	59,276	54,121
Republic of Ireland	7,604	5,255	14,299	12,339	18,319	15,287
Combined	56,237	37,585	24,925	14,453	77,595	69,407

2.2.2 Trip Generation

Having established population counts in each of the catchment contour polygons, the review continues to apply a trip generation for each, using a standard formula developed in 2019 by the University of Hertfordshire for the SEUPB[5].

The application of trip production values by age and car ownership rate provides a total trip production rate by area to demonstrate the total number of trips travelling NI - NI; NI - IRL; IRL - NI and IRL - IRL. These are illustrated in summary in table 2, and in detail in the appendices.

Table 2: Non-Covid zonal trip production totals by jurisdiction

	Carlingford Lough Greenway				Ulster Canal Greenway				North West Greenway			
Origin	NI - NI	NI - IRL	IRL - IRL	IRL - NI	NI - NI	NI - IRL	IRL - IRL	IRL - NI	NI - NI	NI - IRL	IRL - IRL	IRL - NI
Northern Ireland	4,415	6,504			962	1,336			5,219	8,324		
Republic of Ireland			664	907			1,789	2,522			11,291	3,336

2.2.3 Corridor allocation

The next step in analysis requires the allocation of trip productions to their destinations. In other words, whether a trip could make use of the greenway corridor. This step does not

[5] Trip production rates are based on analysis completed for the SEUPB by the University of Hertfordshire in 2019.

allocate trips to the corridor, but determines the extent to which a trip might use the corridor. Table 3 defines the relative percentages that fall within the greenway corridor by jurisdiction.

Table 3: Corridor Trip Factors[6]

Percentage of trips that utilise greenway corridor routes	Carlingford Lough Greenway	Ulster Canal Greenway	North West Greenway
NI to IRL	30%	55%	10%
IRL to NI	50%	90%	45%
NI to NI	15%	10%	5%
IRL to IRL	20%	80%	70%

The percentages estimate the potential for travel remaining within the corridor using the catchment areas defined above. This is then applied to the trip production rates identified in table 3 to provide a total number of trips that would be able to use the greenway in a Non-Covid scenario, illustrated in table 4.

Table 4: Non-covid combined greenway corridor trip productions

	Carlingford Lough Greenway			Ulster Canal Greenway			North West Greenway		
Origin jurisdiction	Non-cross border	Cross Border	Trips	Non-cross border	Cross Border	Trips	Non-cross border	Cross Border	Trips
Northern Ireland	221	650	871	147	401	548	522	4,541	5,062
Republic of Ireland	465	408	873	358	1261	1619	9,033	3,002	12,035
Total daily trip production rate (all modes) falling within greenway corridor			1,744			2167			17,098

2.2.4 Mode Split

In table 4 we estimate the total number of trips that may occur within the greenway corridor. These are then defined to a mode of transport, including walking and cycling, on the basis of mode split data provided by the University of Hertfordshire. This provides likely local use trips within the corridor that can be allocated to the greenway itself in line with the distance decay factor initially discussed above, summarised in table 5, and in detail in the appendices.

[6] Figures relates to percentages in each jurisdiction and will not total 100%

Table 5: Non-Covid Local Use walking and cycling trips

	Carlingford Lough Greenway		Ulster Canal Greenway		North West Greenway	
Origin jurisdiction	**Greenway cycling use (Daily)**	**Greenway walking use (Daily)**	**Greenway cycling use (Daily)**	**Greenway walking use (Daily)**	**Greenway cycling use (Daily)**	**Greenway walking use (Daily)**
Northern Ireland	9.99	3.47	0.59	0.11	21.65	21.28
Republic of Ireland	3.89	2.21	9.50	2.83	68.16	67.00
Initial trip count	13.88	5.68	10.09	2.94	89.81	88.28
Annual equivalent trips	5,064.39	2,074.20	3,683.58	1,072.79	32,779.45	32,221.09
TOTAL ANNUAL TRIPS		7,138.59		4,756.38		65,000.53

2.2.5 Growth factors, tourism and leisure use

On the basis of the analysis described above local use non-covid base trip counts can be defined at approximately 7,000; 5,000 and 65,000 trips. The figure is based on local use alone and excludes any growth that may arise from the presence of the infrastructure (over and above diversion from other routes). The figure excludes tourism uses.

The addition of growth factors reflecting ‘created’ demand and tourism uses is set out in table 6, and provides a total Non-Covid initial use for the projects.

Table 6: Application of Growth and tourism use factors, Non-Covid

	Carlingford Lough Greenway		Ulster Canal Greenway		NorthWest Greenway	
	Local use	Annual Use	Local use	Annual Use	Local use	Annual Use
Local trip count predicted for greenway	7,139	9,423	4,756	6,278	65,000	85,800
Island of Ireland visitors		7,367		4,908		67,080
Overseas visitors		343		228		3,120
Annual equivalent trips		17,133		11,414		156,000

The combination of local growth and visitor use factors suggest an initial annual use of around 17,000 trips for all trip purposes for the Carlingford Lough Greenway; 11,414 and 156,000 for the Ulster Canal and NorthWest Greenways respectively.

2.3 Covid impacts

The preceding section illustrated a model based calculation of trip numbers for a non-covid initial use count, set out in table 6, being an indicative use number for the full length of the greenway in non-covid circumstances. The next stage of the analysis develop a target value

inclusive of the effects of Covid on user demand, for both cycling and walking, based on behavioural responses identified in the the public survey.

To estimate the impacts of changes in demand we have identified the effects of the following factors:

- Local increases in exercise walking and cycling associated with the lockdown;
- Changes to the number of incoming visitor users;
- Local Economic constraints affecting employment; and
- Changes in working patterns (longer term).

Lockdown effects were not all considered negative to the Interreg projects, with a distinct upturn in the numbers of local walking and cycling trips being made for exercise, and as displacement activities. The long-term impacts were also thought to include an increase in physical exercise, though this was also felt to be dependent on the nature of work patterns post-pandemic. Figures 1 and 2 highlight the rate of change as a result of lockdown, derived from our public survey.

Figure 1: Lockdown impacts on cycling

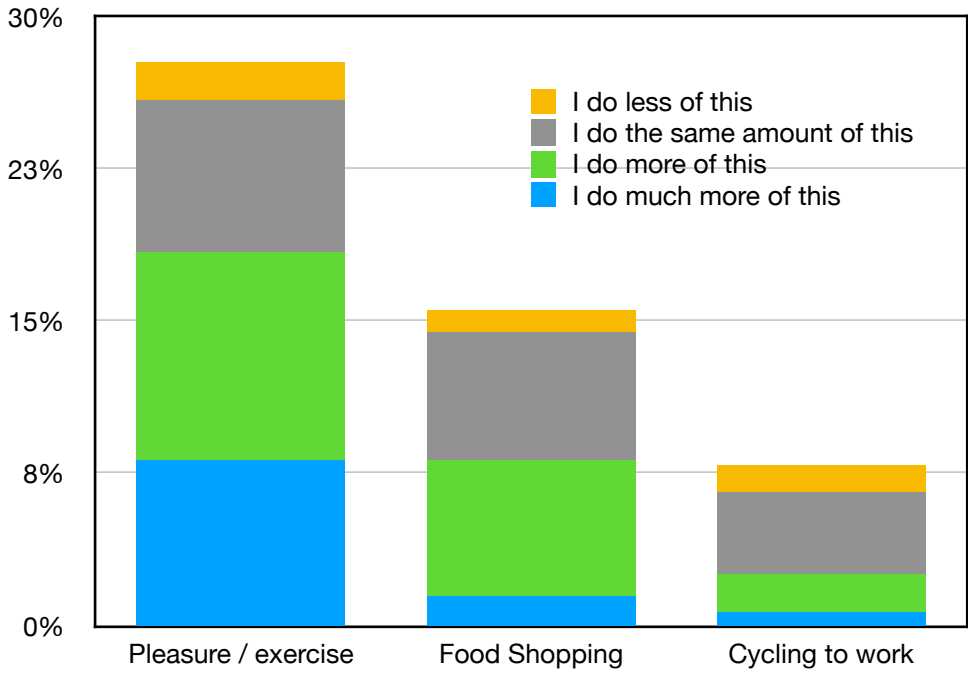
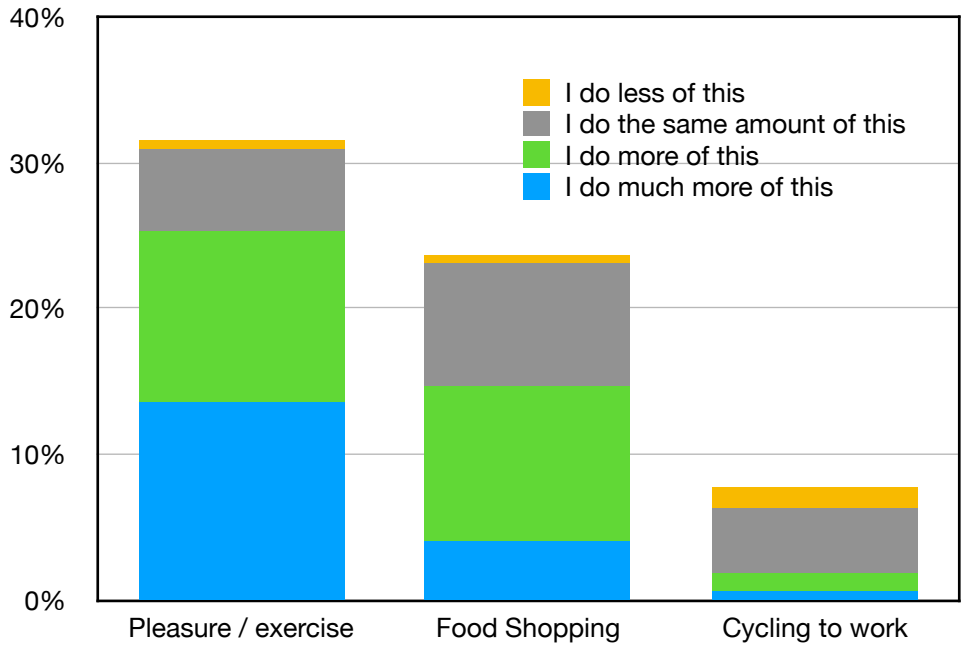


Figure 2: Lockdown impacts on walking

It is notable that increases in cycling are visible in pleasure / exercise and food shopping, with a significant increase in the amount of pleasure and exercise trips made. Work based



trips for both modes are experiencing a greater rate of decline and static state compared to the growth in the other uses.

Both Pleasure/Exercise and Food shopping have seen increases in use above the static state rate, while some increased cycling to work may reflect changes in work patterns as a result of the lockdown. Walking displays a similar rate of change to that of cycling, with notably higher increases in walking for pleasure and shopping trip purposes. A slightly lower increase in commuting use change is seen for walking to work than for cycling to work.

The application of initial mode split rates provides a factor to be applied to the trip numbers on opening, increasing the number of greenway trip uses in line with the stated change in walking and cycling brought about by the lockdown. It child be noted that the gains indicated as a result of lockdown, are likely to decline over time as more normal behaviour returns, though increased physical activity can also be seen as a long term gain to be balanced against a pattern of return to ‘normal behaviour’.

In contrast to the relative gains in local use from increased home based activity, visitor trips are likely to be significantly hit by the travel restraints of Covid 19. Overseas trips to Interreg projects represent a small proportion of all uses, though these are likely to be the most widely hit, with an effective loss of ALL such trips during the course of the pandemic.

While we do not anticipate a permanent loss of all overseas visitors to the area, we have estimated a 3 year recovery for international tourism from the point of travel restriction lifting. A similar recovery rate is anticipated for the domestic market, though this is based on a decline in tourism of 20% at the point of recovery (Department of Business sectoral

impact estimates, August 2020/Failte Ireland, Tourism Recovery Plan, October 2020), with even growth in the period to recovery.

It is noted that while tourism does not in itself contribute to the defined commuting trip purpose, being the only measurement included in the Interreg Results Indicator definitions, the reduction in visitor numbers will play a critical role in the operational success of the projects. Indeed it is likely that all of the greenway projects will experience a significantly higher number of non-commuter users than of those fulfilling the initial cross-border regular commuter requirements set out in the programme definitions of project deliverables.

2.3.1 Project Application

The application of the factors described in the sections above allow for the recalibration of the initial trip figures, see table 7. It is important to note that the revision to non-covid number is based on a series of assumed and reported behaviours, all of which are dependent on the course of the pandemic and relaxation of lockdown rules and restrictions. While these are based on the best estimates identified in the course of this analysis, there are no certainties in the nature of any recovery. We have therefore chosen a limited timeframe for the analysis concluding in a revised initial trip number (post covid) applicable on opening.

Table 7: Covid Impact on Demand (all use types)

	Annual use Non-Covid			Annual use Post-Covid		
	Carlingford Lough Greenway	Ulster Canal Greenway	NorthWest Greenway	Carlingford Lough Greenway	Ulster Canal Greenway	NorthWest Greenway
Local trip count predicted for greenway	9,423	6,278	85,800	10,130	6,749	92,241
Island of Ireland visitors	7,367	4,908	67,080	1,965	1,309	17,890
Overseas visitors	343	228	3,120	17	11	155
Annual equivalent trips	17,133	11,414	156,000	12,112	8,070	110,286

The identification of a sharp decline in travel associated with Covid-19 should be identified as an exceptional event with ongoing consequences. The step change in demand need not be permanent nor indicative of future years growth patterns, but could well result in a recalibration of travel patterns and expectations over the period of the next few years. It is also notable that declining levels of demand will affect differing sectors differently. Thus the significant decline in overseas visitors demonstrated in table 4 will experience a differing rate of recovery than domestic visitors. It is also possible that the gains in local uses associated with increased leisure and exercise trips will fall as the individuals making these trips return to a more traditional work pattern. The extent to which these changes affect project deliverables is discussed below.

3. Project Deliverables

In previous sections we outlined two areas of project delivery. These relate to the physical delivery of infrastructure, the output indicator; and the effect of that infrastructure on the use of sustainable transport, the results indicators (RIs). Both physical delivery and results indicators are likely to be affected by the Covid pandemic, though the extent and potential for impact will vary by project type.

In this section we assess the impacts to the differing projects by type, and provide a commentary on the extent to which these impacts need be taken in to account by the Interreg programme. This will, in turn, affecting the definitions of successful delivery, within the meaning of the Interreg programme, and wider indicators of contributions to communities as discussed by project type, below[7].

3.1 Greenways

In the preceding section we highlighted a potential reduction in the numbers of trips that may result from the greenway projects. The combination of public survey responses and the demand model described in section 2, suggests a global decline in all trip types of around 1/3rd in greenway use, though this number follows from the perceived rates of recovery at the time of the analysis. As current constraints, being more severe at the time of writing than at the time of analysis, suggest a more extreme version of the lockdown is likely to continue it may be reasonable to suggest a slower rate of recovery than that originally anticipated.

It is also important to recognise that the RIs defined in the Interreg programme relate specifically to regular cross-border commuting use of the greenway, being a trip category that has been more severely impacted than local leisure uses of greenway and similar infrastructure. In short a greater number of leisure trips are likely to occur, and grow / recover at a faster rate than business and work oriented trips. For completeness we also highlight that international tourism has been significantly impacted by the pandemic and is also likely to recover more slowly than local leisure users.

The differential rates of use and pandemic recovery by trip purpose serve to highlight the range of impacts affecting greenways. Walking and Cycling have become more popular during the pandemic for local trips, mainly for leisure and exercise purposes. These trips may include cross border activities, though this will vary by greenway location, but fall outside the RIs set for the Interreg programme. The opposite effect is likely of international tourism, though this also is excluded from the RI measurement.

[7] It is important to note that commentaries set out in respect of covid recovery rates are made on the basis of statistical analysis. We make no claims of epidemiological knowledge and have based our scenarios on observations alone.

Patterns of travel to work and commuting for work and school are also impacted by the pandemic. School trips were observed to provide a boost to regular cross border commuting. Such trips are generally felt to be required, and it has been observable that restrictions on school attendance have been avoided, to the greatest extent possible, by both Republic and Northern Ireland authorities[8].

Work based trips are significantly impacted by the pandemic, and are likely to remain affected to reflect the change in working patterns necessitated by the pandemic. These include a significant increase in the numbers of home based workers, originally mandated by lockdown, likely to continue beyond the pandemic itself. The increase in home based working may have the result of encouraging leisure and exercise based greenway use, discussed below, but will ultimately reduce the number of commuting trips and thus impact on the measured delivery of RIs by the greenway. Further reductions in work based commuting are also likely to reflect the loss of employment that may result from the pandemic, and the shift in working practices described above. The net effect of the pandemic on greenway use will follow from the process toward recovery from the pandemic itself.

Status Quo

Where the situation remained unchanged from that apparent at the time of the survey, it is likely that a continued loss of potential use would occur. This is estimated at a global loss of 32%[9], and an estimated RI loss of 37%, reflecting a higher rate of loss amongst traditional work users. Education use losses are more limited on the basis of observed prioritisation of school attendance.

Limited Recovery Scenario

Current observations suggest a need for a more cautious view on recovery than that apparent at the time of the initial analysis. Infection rates have increased in the period since the survey, prompting Irish authorities to apply the highest tier restrictions (tier 5) until the end of January 2021[10]. New variant strains of the virus were also becoming apparent at the time of writing, though the effect of these on infection rates suggests an increase in transmissibility, and a greater impact on younger age groups than in previous strains[11].

The increased severity of the pandemic creates a more concerning picture for the delivery of RI measures. We have therefore increased the rate of decline in both work and education

[8] Some constraints on school opening dates have been applied, including the delay of returning to school after vacations. This includes a proposed delay in return to the 11th January 2021 for ROI schools, though this delay would not remove school based commuters from the definition of regular cross-border commuter trips.
[9] A small variation is observed between greenways, documented separately
[10] All dates given were correct at the time of writing.
[11] Increased infection rates amongst school age children is likely to have an accelerated impact in the impacted RI population.

based commuting trips in this scenario. Other areas of uncertainty relate to the impact of vaccinations on the recovery rate, which we have made an assumption of being widely available toward the end of 2021 (4th quarter). This results in a 2021 / 22 demand decline of 47% amongst RI use, and a global decline of 35% amounts all users. The delivery timescales of the Interreg projects is also pertinent to this analysis. On the basis of the completion and opening dates originally defined most of the supported projects would be scheduled to open their infrastructure at the time of least demand. This would result in an exaggerated impact prior to recovery.

While demand is likely to recover from the point of widespread vaccination, even quite quickly in some sectors, the residual decline in traditional work patterns is likely to be longer lasting, reflecting both a permanent change in working practices for some, and a loss of employment for others. The impacts of this scenario is discussed in relation to all of the projects in section 4, below.

Rapid Recovery Scenario

The concept of a rapid recovery is predicated on an increase in economic activity following a linear decline between infection and hospitalisation rates, and an overall all in the number of cases. The period from May to the end of August 2020, saw relatively flat line change in the rate of infection. Both UK and Ireland statistics indicated a stability in the rate of new cases. In both countries the rate of hospitalisations per 1000 infected had fallen, allowing for some optimism as to the rate of societal recovery.

A rapid recovery would be likely to have an impact on the numbers of jobs retained. Business support and furlough schemes have had the effect of reducing the rate of lay-offs and creating a ‘quick start’ for traditional business activities on recovery. Moreover the rapid recovery would result in a resumption of activities within the delivery timescale of the projects, reducing any ‘peaking’ in impact.

By applying a reduction in loss of 5% to global loss to equate a loss in 27% across all use types, local gains in leisure use and a reduced rate of employment loss would equate approximately 31% loss in RI indicators, and potentially lower rates of loss where a more sustained recovery could be achieved, for example through the rapid deployment of vaccination programmes.

Review

While we continue to underline the uncertainty associated with the rate of recovery from Covid, we would also highlight the increased severity of the pandemic over recent months. This would tend to suggest a more pessimistic outcome than may have been concluded at an earlier point in time. It is also important to be aware that any recovery scenarios are, by their nature, highly speculative.

Given the relative worsening of the pandemic it would appear, on balance, to be appropriate to adopt a more restrained recovery. We have therefore adopted a limited recovery scenario discussed in section 4, below.

3.2 Multi-modal hub

In common with the greenway output and result indicators, the NWH has defined deliverables including the hub itself, being a purpose designed renovation of the original Waterside station in Derry/Londonderry; and RIs related to local mode split using public transport.

Many of the same arguments as set out for greenways also apply to the hub insofar as total trips being made reflect the overall demand for travel in light of the pandemic. Public Transport trips being hard hit by the various levels of restriction and lockdown, and without any residual growth in leisure or exercise uses seen in walking and cycling modes. Differences relate to the relative distance of journeys made, and a geographical concentration of trips to employment within or close to the City of Derry, reducing still further the potential RI growth in regular cross border commuting.

Given the difference between the patterns of use of greenways and the hub it was felt appropriate to separate survey design and analysis elements to a stand alone exercise for the hub, which have themselves been affected by time and availability constraints resulting from the pandemic. We have therefore scheduled outreach and engagement associated with further analysis of the hub until early 2021. This is likely to coincide with the FST surveys allowing for comparison across all projects in the first quarter 2021. We propose that a review of all findings be included in a further technical report in the first months of 2021.

3.3 Electric Vehicle project impacts

The EV project FASTER was added to the Interreg VA projects in October 2020. The addition of the project followed after the initial review of covid impacts, but was agreed to be added to the analysis. Many of the aspects of the project reflect the same issues of declining demand as seen in the other interreg projects, though the focus of the project - on the provision of charging infrastructure, is less directly impacted than those associated with the specific numbers of trips being made. It is also notable that the project definitions differ from those of the other projects by concentrating on the physical delivery of infrastructure as a primary output, without specific definition of Results Indicators that had been common in the other Interreg VA Letters of Offer[12].

[12] Reference is made numbers of EV registrations under section 15 of the project implementation conditions, p6 of the letter of offer, though no defined RI values are stated in the offer document.

As in the other projects, demand for EV charging infrastructure follows from a need for travel, but differs in the nature of that demand as being related to a specific fuel type in one mode rather than the choice of one mode or the choice to travel at all. The need for EV charging infrastructure also reflects on a wider economic relationship between vehicle costs, expenditure and the chicken-and-egg relationship between the presence of charging points and choice to purchase an EV in the first place. As discretionary expenditure is likely to fall as a result of the pandemic this, in turn, is likely to affect the purchase of new EVs. This relationship need be balanced against any decline in the total number of cars being purchased, affecting the relative proportion of EVs being purchased as a percentage of all new vehicles. It is also possible that the market will move from newer to older vehicles, which may have the effect of reducing the numbers of electric vehicles purchased in relation to petrol and diesel vehicles.

It is also worth noting that a recalibration of the numbers of EVs that may be attributed to Interreg projects was undertaken in 2018 by TRP[13] and 2019 by Zero Carbon Futures (ZCF)[14], leading to the SEUPB 'Indicators Briefing Note' (2019)[15] proposing the definition of an EV programme result indicator of a measured increase from a initial use counts of 5,937 to a target count of 15,630 EVs by the end of 2023.

While we agree with the recalibration of EVs as appropriate to reflect the change in ownership patterns observed in the period to the start of the project, and had concluded a broadly consistent requirement in our analysis*(ibid)*, it is also noted that the growth rate assumed in the ZCF document is based on an exponential curve in ownership that may no longer be valid in light of the pandemic. The ZCF and SEUPB indicators briefing note also both reference greater geographical areas than those covered by the Interreg programme area, which may also impact on the actual numbers of EVs that may be attributed to the EV project.

4. Synthesis and conclusions

In presenting this report we would define the purposes of an annual document as including:

- The reporting of substantial and fundamental changes in circumstances as may have occurred in the 12 months to the report;
- The review of project progress, including any response required by and reflective of the changes in material circumstances;
- Review of the abilities of the projects to achieve the objectives, project goals and results indicators defined in the letters of offer; and

[13] Transport Research Partners, December 2018, Review of changes in Electric Vehicle objective (Ref: 18112301JC)
[14] Zero Carbon Futures, 22 Nov 2019
[15] SEUPB 28 Nov 2019

- Make recommendations that support the delivery of project objectives, including any updates that may be required to reflect changes in the circumstances within which projects are delivered.

In previous years we have reviewed and reported on the application process and the calculation of values applied to the definitions of RIs. It was also noted that use of infrastructure was more likely to follow from non-commuting trip purposes, though this measure was not included in the original definitions of RI.

The period to date, and notably from March 2020 to present have faced a significant challenge to the Interreg VA priority 3 projects, namely the impacts of Covid 19 on the management of projects, construction of infrastructure, and potential use once completed. We have focused much of our effort on the analysis of these impacts and the results of these analyses are set out above, and in detail in separate technical reports.

It is of credit to the projects that they have continued despite many of the operational, practical and physical barriers that the pandemic has produced, all of the projects under review, including the newly approved EV project, have managed to maintain progress. Most have focused activities on those that can be achieved without disruption, though it is also apparent, and understandable, that physical activities and public engagements have been curtailed. The impacts of the pandemic include a potential delay in the delivery timetables; additional costs, that may lead to cost overruns, and a reduction in the extent of physical infrastructure that can be delivered within the timescales, and budgets, defined for the project deliverables.

It is also apparent that transport and travel choices being made by the wider public during the pandemic have changed, as have patterns of employment and the wider economy. Some of these changes will be permanent and outlive the pandemic. Of particular interest are the patterns of work, including increases in home-working, that will have the material impact of reductions in regular commutes, including those on which the RIs were predicated.

Other long term impacts include changes to international travel patterns, which, while not directly impacting on the RIs, will have a material impact on the local economies, particularly in locations where incoming tourism has been a feature in the past. Such changes are likely to have knock on effects on local employment, and may thus impact to further reduce commutes amongst the affected population.

It is also apparent that an increase in activity may be attributed to leisure and exercise trip purposes, which will impact most on the greenway projects, and may lead to some recovery of trips made, though these will again not contribute to the commute trip purpose defined in the RIs.

4.1 Project Delivery

In line with the analysis set out above, we would observe that a reduction in activity is an inevitable outcome of the pandemic. This has been observed in the progress of some of the projects, but is countered by a strong focus on continued delivery of those elements that can be completed despite the pandemic. All of the projects report and can be observed to have made comprehensive use of home-working and on-line technologies. Some decline in physical and engagement activities is reported. A number of projects have reported budgetary implications, already reported to SEUPB, and set out in summary in the response tabulations included in the appendix of this document.

4.2 Results Indicators

In our previous annual reporting we have addressed the need to calibrate output and result indicators for the Interreg projects. This calibration appears more important given changes in behaviour resulting from Covid as discussed above.

In our annual reports we made a recommendation that indicators may be updated to a specific value. This is made more difficult, however, in light of the changing and continuing nature of the covid pandemic. We would therefore rather recommend that the changes in demand calculated above be allied to expectations rather than precise and achievable outputs at this time. This said, a continuing analysis of the trends associated with Covid-19, including any change and recovery from the pandemic in the future, would allow the results of the projects to be fairly assessed against the context and barriers that exist at the time(s) of such review(s).

4.3 Recommendations

In light of the analysis undertaken in the 12 months to the end of December 2020, it is apparent that a significant change in travel patterns has occurred. Despite the downturn in immediate regular cross-border commuting, we do not consider that the role or importance of the Interreg VA projects has been diminished. Indeed in many aspects the significance of greenway projects has been enhanced, not least in the increased use of cycling and walking for exercise during the lockdowns.

It is also necessary to highlight that, although we recognise and anticipate an increase in local use of greenways for leisure purposes, this gain will fall outwith the measures defined in the original Letters of Offer. We would therefore recommend that further reviews include global use of the greenways as a new indicator in addition to the commuting based uses currently applied.

Public transport use is likely to continue to decline with a continuing and negative impact on the use of the NWH multimodal-hub, though the full extent of this decline is unlikely to be fully apparent until after recovery.

Electric Vehicle purchase and use is also likely to be affected by the pandemic, though we do not, at the time of writing, have sufficient data to assess the extent of this impact. We will work with the FST project team to develop and apply calculations appropriate to the analysis of the impacts of Covid on EV use.

We further recommend that a continued analysis of Covid impacts be incorporated in our evaluation and annual reporting. Having established a methodology for this inclusion, described in section 2, above, we would propose this is incorporated in to subsequent annual reports. It may also be of interest as a subject in the programme conference scheduled for the final year of review.

A. Appendix

A.1 Project Survey - Covid Impacts

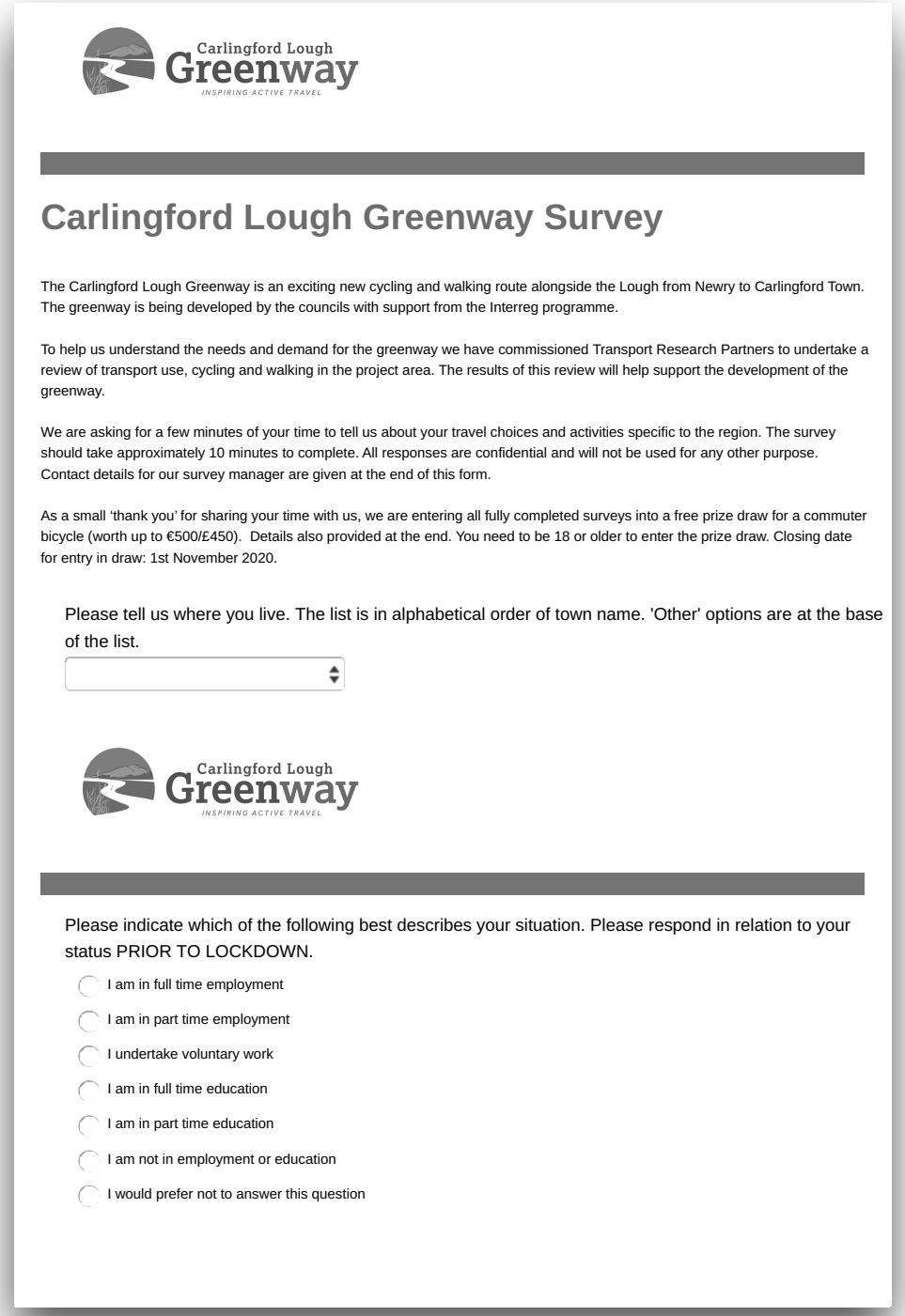
	North West Greenway	Carlingford Lough Greenway	Ulster Canal Greenway	North West Multimodal transport Hub
Prior to the COVID-19 crisis were there any obstacles hindering the implementation of your project?	Programme- Due to, inter alia, the requirement to prpepare unforseeable planning reports, an Environmental Impact Assessment report, the lenghty land acquisition process and transboundary planning notification process, the project programme has been extended from an anticipated completion date of Dec 2021 to a revised anticipated completion date of Mar 2023.	The budget deficit, landowner issues and objections were the main issues hindering the project	Yes, SEUPB have been kept informed of the challenges facing the project since last year. On the 9th April, SEUPB were formally notified of a significant budget shortfall which is a signifant risk to the implemtation of the project	No
	Cost- Due to the requirement to prepare unforseeable planning reports, the requirement to preapre an Environmental Impact Assessment report and an increase in estimated construction costs since project application, the project is facing a funding deficit of c. EUR8 million.			
What has been the impact of the COVID-19, to date, on your ability to deliver in full the outputs specified in the Letter of Offer?	-The submission of An Bord Pleanala planning application has been delayed by a further six weeks, due to consultants being unable to access private lands to complete required planning and EIAR reports, due to COVID restrictions.	We were unable to put the Part 8 for Section II of the Greenway on Public Display until the covid restrictions were lifted.	The restrictions imposed to control the spread of the Covid 19 virus have caused a significant delay to the project. All Project Partners have been working remotely since March and all face to face meetings have been cancelled. The Public Information events planned for early April to unveil the Preferred Route had to be postponed until August. Two of the three events planned were held under strict conditions in August, but the third event planned for Smithborough on the 27th August had to be postponed again at short notice due to the tightening of restrictions on public gatherings announced by the Government on the 20th August.	Main impact has been on completion date for the project. As a result of Covid and the enforced shut down of the site, the date has been moved back by 2 months to the end of November 2020
	- Cost increases (possibly in excess of £50k_ on live construction projects have also occurred due to contractors having to demobilize, remobilize and the cost of additional COVID related PPE.		Furthermore, all face to face meetings with Landowners were put on hold from March to August which made progressing the land acquisition element of the project virtually impossible.	
	-Beneficiary engagement-face-to face engagement activties were postponed during COVID restrictions which may result in a delay to acheiving the modal split output targeted rise.			
Do you anticipate the impacts outlined in question 2 to be sustained over an extended period, and, if yes, to what extent?	Not at this time.	No, the majority of the issues have been resolved with the easing of restrictions. However there are still residual impacts. It is difficult to contact external consultants who are working from home particularly those that may be working flexi hours, also external consultants are unusually busy as they are working through a backlog of work since the lifting of the restrictions.	If the current Covid-19 restrictions remain in place, there will be an ongoing impact on the project. In general, Covid19 introduces more rigidity in relationships with stakeholders. Contacts have to be formalised which creates more challenges for the public as well as the project partners. Obviously, nobody knows how long the current (or tighter!) restrictions will remain in place, so it is impossible to quantify at this stage what the overall impact will be.	There will be no further impact other than the 2 months delay outlined above

Looking at the timeline of your project, will it still be feasible to deliver all foreseen activities? If not, which activities have been/ will be most affected by the COVID-19 crisis and/or are no longer possible to complete?	Too early to state the consequences, though delays to submitting planning applications due to COVID 19 may impact upon the delivery of the km output target.	Public Consultations are difficult to hold/plan given the travel restrictions and anticipated 2nd wave.	The Covid-19 crisis has caused a significant delay to the project, and although the project is progressing, current restrictions are having an ongoing impact on the project. Progressing the land acquisition is particularly challenging under these conditions.However, the Project Team is confident that the Project can be delivered in full before the end of the Programme period, subject to the funding shortfall being made up.	Given the impact Covid has had on travel and the vast reduction that has occurred on all of Translink services, then achieving some of the targets in relation to Public Transport will be challenging.
				Specifically targets D.T2.2.1 (local services), D.T2.2.2 (Cross Border Services) and D.T2.2.3 (Private Operator's provision) will need to be reviewed in light of the reduction on the numbers of people travelling.
Do you think that you will be able to deliver your project fully within its current budget? (i.e. has the COVID-19 crisis led to any increase in costs)	Refer to Q2. It is also anticipated that future construction costs will increase due to the need to practise social distancing onsite and to supply additional PPE to workers to meet COVID guidelines.	Consultants and contractors are having to implement Covid 19 procedures in their work practices. The cost of these additional health and safety measures will inevitably be passed on to the client.	No, SEUPB were formally notified on the 9th of April of a substantial budget shortfall. That shortfall is likely to increase as a result of prolongation of the project due to the Covid-19 crisis.	To date the contractor has not advised of any Compensation Events in relation to Covid and the Project Manager has informed the last project board that the project remains on budget and within the LOO.
Do you think that you will be able to reach the level of spending foreseen by the end of 2020? And by the end of your project?	Yes	In theory I dont see this as an issue unless a 2nd wave of the covid 19 results in complete lockdown restrictions being imposed.	A revised budget Forecast for 2020 was provided to SEUPB in April. That expenditure forecast is still achievable. The original Project end date of 30/06/2021 is not achievable and SEUPB have been made aware of this. In our Memo dated 9th April, an extension until 31/03/2023 was requested, but even that date now looks unlikely due to a number of factors including the Covid 19 crisis	I have just advised SEUPB of our revised expenditure profile and bar the contractual retention of €245k, then the project will be spent out by the end of 2020.
Do you think it will be feasible to make up for any delays experienced during the lockdown?	No. Works, particularly, third party survey works, were delayed by 6 weeks due to restrictions. It is unlikely that this time will be regained going forward.	Unfortunately the covid restrictions has delayed our planning applications and will have an effect on our programme. We do hope to make up some time during the construction stage but that is dependent on no 2nd wave of Covid 19 and no unforseen issues during construction.	No, the timeframe for delivery of the project was always very tight and delays associated with the Covid 19 crisis has caused further slippage in the programme. A project extension will be required.	The delay experienced will not impact on the project being completed by the of 2020
Do you think that the current crisis will jeopardise the expected results of your project? Please explain.	Programme delays may result in the km output target not being met by SEUPB's Programme deadline- 31st March 2023.	The current crisis in particular the restrictions and possible 2nd wave and subsequent restrictions will cause delays. The extent of these delays is difficult to quantify but may push the project beyond the 2023 cutoff date. The delays will inevitably have a cost implication this will only add to our current budget deficit.	No, the Project can still be delivered but the completion date is likely to be significantly delayed as a result of the crisis.	No it will not have an impact on the expected results of the project.
	Costs have increased (+£50k to date) and unless additional funding is leveraged in then the output target may not be met, albeit, the project was facing a significant funding deficit prior to restrictions being introduced.			
What measures have you had to take so far as a consequence of the COVID-19 crisis? (furloughed staff, trading on hold, temporary business closure, etc)	Staff are now working from home on a regular basis and this is likely to continue for the forseeable future.	Working from home and conducting meetings online.	All Project Partners have been working remotely since mid-March, similarly the Design Team. All meetings have been held via Microsoft Teams and face to face meetings with stakeholders were postponed between March and July.	Covid training and safety measures have been introduced by the contractor on site. The site did close for 6 weeks but reopened in May 2020
	The majority of programme meetings are now held remotely.			
	Participant numbers have had to be limited for engagement events			

Did you ask for support from the programme bodies during the COVID-19 emergency? If yes, on what matter?	Yes, Prompter payment of claims to assist with cashflow.	I asked for approval to purchase a laptop to facilitate working from home. Unfortunately there were delays with ordering and deliveries during the restrictions and the laptop order was cancelled and I had to use my personal laptop. This had implications with IT security restrictions.	No, the Project Team have adapted their normal work practices to ensure the Project is progressing during this time, albeit at a slower pace than normal. SEUPB have been kept informed of the challenges faced and the measures being taken to mitigate the impact of the crisis.	No support was required from SEUPB
What kind of support from the Programme would enable you to deliver your project as fully as possible? (For instance, more flexibility in terms of budget, timeline extension)	Additional funding	Additional funding has been requested as well as an extension to our project timeline. We will need additional funding to cover potential claims from our contracted consultants as a result of the covid restrictions, this was not included in the additional funding application as the impact of the restrictions was not known.	timeline extension and additional budget to cover the prolongation costs will be required to deliver the project as fully as possible.	The project will be delivered as planned by the end of 2020
How have you or how do you intend to adapt your activities, target groups or outputs as a result of the crisis? Please describe any measures taken	More remote engagement activities will be held, where possible	We are contacting landowners via phone or email.	The Covid 19 crisis has highlighted the need for sustainable Transport choices and this Project will provide the first sustainable transport choice for cross-border commuters between Co. Monaghan and Co. Armagh. During the crisis, there has been a massive increase in the numbers walking and cycling to and from their place of work/ education, and there is now real momentum for a switch towards sustainable transport choices. A targeted public relations campaign will be launched prior to the opening of the Greenway to tap into that momentum and get as many people as possible using the Greenway.	There is no requirement for any adaption
	Programme meetings will continue to be held remotely.	We are continuing to hold steering group meetings via Zoom.		
Do you think that the cooperation established with the partners of your project has enabled a better response to the emergency?	Yes, as all project issues are reported on a monthly basis to the project partners including the SRO & Investment Decision Makers, the Risk Register & Programme updated and circulated to all regularly, which assists flag problems at an early stage and to find solutions.	Yes	Yes, there is excellent cooperation between all the Partners on this project. There has been a coordinated response, and all Partners have adapted their work practices and have worked together to minimize the impact of the crisis.	Communication channels built through the programme board structure has helped the project manager keep the partners informed of the delays caused by Covid.
Has any partner been directly involved in the response to the emergency?	Yes, DCSDC, DCC & DFI as accountable bodies have all been directly involved in the response to the crisis.	NMDDC have been very supportive, proactive and responsive regarding the major planning application in NI	All partners have been directly involved in the response to the crisis by adapting their work practices to minimize the impact on the project.	Translink and the Department have kept an overview of the project to ensure that work on site could recommence as soon as was safe.
What additional risks are posed to your project due to the crisis? What mitigation measures have you put in place?	KM contingency plan- a route contingency plan is in place and has been agreed with SEUPB, to be implemented should the intended km not be achieved in a timely manner as a result of programme delays or funding implications as a result of COVID restrictions.	Social distancing restrictions. We are continuing all design and steering group meeting via an online medium such as zoom.	The Public Health risks associated with Public gatherings made it challenging to hold public events to unveil the Preferred Route. However, by the use of a pre-booking system to control the numbers, together with strict implementation of social distancing measures, it was possible to run very successful events in Tyholland and Middletown. However, the Smithborough event had to be postponed at short notice following the tightening of restrictions by the government which limited the maximum number at an indoor gathering to 6. This event cannot be rescheduled until that restriction is eased.	Whilst Covid has been added to the risk register, the project manager is confident that these are being managed and the completion date will be achieved.
	Funding- funding applications have been lodged to both SEUPB and DFC to bridge the funding gap			

What lessons/best practice have you learnt when adapting your project to the changing circumstances?	Good governance is vital to ensure problems and issues are reported to all involved in a timely manner.	The project wasn't set up for working from home in poarticular the IT implications for myself using a laptop externally and accessing the Louth County Council folders, this took time to resolve.	All Steering Group and Technical Group meetings since the start of the crisis have been held online. This has been found to be adequate in the circumstances but not as effective as face to face meetings. We learned that we can manage public events with good pre-planning, risk management etc. The pre-booking requirement for attendance at the public events worked well.	Communication and the ability to work remotely has been a key factor. This has allowed the meeting and oversight to continue even at the expense of site visits
		Working from home or onsite will continue and its important to have the ability to do so. Internet issues when working out of office could potentially be an issue and mobile dongles may be required to enable remote working.		
Are the challenges and needs addressed by your project the same as before the COVID-19 crisis or have they changed as a result?	Prior to the crisis, funding and programme were the main challenges being faced. As costs have increased and the programme has had to be extended due to the crisis, it has compounded matters further.	The main challenges are still the same ie the budget deficit and extension of time required.	The main challenges faced by our project, (budget shortfall, planning and landowner issues) have not changed but the delays as a result of the crisis will lead to increased costs and a later than expected completion date for the project.	Recovering the passenger numbers for Public Transport will impact in the receovery period post Covid. However I am certain that once that has occurred then the challenges nad needs will be similar to pre Covid.
How could a future programme contribute to the recovery from the crisis?	The need is within the confines of the current programme in terms of funding and programme extensions.	Ensure the projects are able to work remotely, ie provide for laptops, internet dongles printers/scanners	The Tourism and hospitality sector has been decimated by The Covid -19 crisis, so any future Programme should be focused on reviving that sector and by doing so will provide a much needed stimulus to the Border Region. As well as providing a sustainable transport choice and being an excellent facility for local communities for health and leisure activities, Greenways attract visitors to the area thereby supporting the local economy. The Ulster Canal Greenway will form the spine from which other Greenway projects will develop. Therefore, it is imperative that this Project which is strategically important to the whole Border region is funded to completion under future Programmes.	Investing in capital infrastructure will certainly help with the economic impact of the programme and therefore any help any future programme can give towards this will certainly help achieve this aim.
	Beyond that, follow-on funding programmes should take full account of additional costs arising due to the crisis e.g. the likelihood of constructions costs increasing.			

A.2 Public Survey - Greenways[16]



Carlingford Lough Greenway
INSPIRING ACTIVE TRAVEL

Carlingford Lough Greenway Survey

The Carlingford Lough Greenway is an exciting new cycling and walking route alongside the Lough from Newry to Carlingford Town. The greenway is being developed by the councils with support from the Interreg programme.

To help us understand the needs and demand for the greenway we have commissioned Transport Research Partners to undertake a review of transport use, cycling and walking in the project area. The results of this review will help support the development of the greenway.

We are asking for a few minutes of your time to tell us about your travel choices and activities specific to the region. The survey should take approximately 10 minutes to complete. All responses are confidential and will not be used for any other purpose. Contact details for our survey manager are given at the end of this form.

As a small 'thank you' for sharing your time with us, we are entering all fully completed surveys into a free prize draw for a commuter bicycle (worth up to €500/£450). Details also provided at the end. You need to be 18 or older to enter the prize draw. Closing date for entry in draw: 1st November 2020.

Please tell us where you live. The list is in alphabetical order of town name. 'Other' options are at the base of the list.

Carlingford Lough Greenway
INSPIRING ACTIVE TRAVEL

Please indicate which of the following best describes your situation. Please respond in relation to your status PRIOR TO LOCKDOWN.

- I am in full time employment
- I am in part time employment
- I undertake voluntary work
- I am in full time education
- I am in part time education
- I am not in employment or education
- I would prefer not to answer this question

[16] Version shown: Carlingford Lough Greenway. Survey questions generic for all greenway surveys, adapted to use place names specific to the location of the survey being undertaken.

PRIOR TO LOCKDOWN, did you work from your home, or a fixed place of employment eg: an office, shop etc.?

- From home for a majority of the time
- From a fixed workplace most of the time

PRIOR TO LOCKDOWN, did you study at a school, college or university?

- At a school
- At a university or college

Carlingford Lough Greenway
INSPIRING ACTIVE TRAVEL

Please tell us where you work or study.

How many cars or vans are there in your household? Please think of your household as you and the members of your immediate family normally living at your address. Please only count cars that are licensed / able to be driven.

- 0 cars available
- 1 car
- 2 cars
- 3 cars
- 4 cars or more

How many bicycles in your household? Please only indicate bicycles that can be used.

- 0 bicycles available
- 1 bicycle
- 2 bicycles
- 3 bicycles
- 4 bicycles or more

Please tell us how many people are in your household. Think of your household as you and the members of your immediate family normally living at your address. Include children and babies in your count.

- 1 person (You alone)
- 2 people
- 3 people
- 4 or more people

Thinking about your normal travel patterns BEFORE LOCKDOWN, how often did you make the following trips BY CAR? (Please indicate all that apply.)

	5 or more times per week	2 - 4 times per week	About once a week	About once every 2 or 3 weeks	Once or month or less often	Never
Driving or being driven to work	○	○	○	○	○	○
To study	○	○	○	○	○	○
To a shop	○	○	○	○	○	○
To entertainment or an evening out	○	○	○	○	○	○
To see friends or relations	○	○	○	○	○	○

Thinking about your normal travel patterns BEFORE LOCKDOWN, how often did you make the following trips By CYCLING OR WALKING? (Please indicate all that apply.)

	5 or more times per week	2-4 times per week	About once a week	about once every 2 - 3 weeks	Once a month or less frequently	Never
Cycling or Walking to work	○	○	○	○	○	○
To study	○	○	○	○	○	○
To a shop	○	○	○	○	○	○
To entertainment or an evening out	○	○	○	○	○	○
To see friends or relations	○	○	○	○	○	○
Taking a cycle ride without other purpose (e.g. leisure / exercise)	○	○	○	○	○	○
Taking a walk (stroll) without other purpose (e.g. leisure / exercise)	○	○	○	○	○	○

Thinking about your normal travel patterns BEFORE LOCKDOWN, how often did you make the following trips BY BUS OR TRAIN? (Please indicate all that apply.)

	5 or more times per week	2-4 times per week	About once a week	About 2 or 3 times a month	Once a month or less frequently	Never
Using a bus or train to/from work, including journeys for work	○	○	○	○	○	○
To/from study	○	○	○	○	○	○
To a shop	○	○	○	○	○	○
To entertainment or an evening out	○	○	○	○	○	○
To see friends or relations	○	○	○	○	○	○

If a greenway was built close to your house would you CYCLE more often? Please answer for each of the following.

	I would make at least 1 more cycle trip per day	I would make 3 or 4 more cycle trips per week	I would make 1 or 2 more cycle trips per week	I would make a few more cycle trips per month	I don't think I would cycle any more than I do now
Access to greenway within a few metres of my home	○	○	○	○	○
Access to greenway about 500 metres (450 yards) from my house	○	○	○	○	○
Access to greenway up to 1km (2/3 mile) from my house	○	○	○	○	○
Access to greenway between 1 and 2 kms (up to 1.5 miles) from my house	○	○	○	○	○
Access to greenway between 2 kms and 5kms (up to 3 miles) from my house	○	○	○	○	○
Access to greenway within 10kms (6 miles) of my house	○	○	○	○	○

If a greenway was built close to your house would you WALK more often? Please answer for each of the following.

	I would make at least 1 more walking trip per day	I would make 3 or 4 more walking trips per week	I would make 1 or 2 more walking trips per week	I would make 1 or 2 more walking trips per month	I do not think I will walk any more than now
Access to greenway within a few metres of my home	○	○	○	○	○
Access to greenway about 500 metres (450 yards) from my house	○	○	○	○	○
Access to greenway up to 1km (2/3 mile) from my house	○	○	○	○	○
Access to greenway between 1 and 2 kms (up to 1.5 miles) from my house	○	○	○	○	○
Access to greenway between 2 kms and 5kms (up to 3 miles) from my house	○	○	○	○	○
Access to greenway within 10kms of my house (6 miles)	○	○	○	○	○

For the following activities, how often would you CYCLE along a greenway if it ran within a few metres of your route?

	Every day	3 or 4 times per week	Once or twice per week	Once or twice per month	I would not cycle for this purpose
Pleasure (cycle for fun)	○	○	○	○	○
To go shopping	○	○	○	○	○
To see friends or relatives	○	○	○	○	○
To go to a cafe, restaurant or cinema during the day	○	○	○	○	○
To go to a pub, restaurant or cinema in the evening / night	○	○	○	○	○
To go to work or study / school	○	○	○	○	○

For the following activities, how often would you WALK along a greenway if it ran within a few metres of your route?

	Every day	3 or 4 times per week	Once or twice per week	Once or twice per month	I would not walk for this purpose
Pleasure (stroll for fun)	○	○	○	○	○
To go shopping	○	○	○	○	○
To see friends or relatives	○	○	○	○	○
To go to a cafe, restaurant or cinema during the day	○	○	○	○	○
To go to a pub, restaurant or cinema in the evening / night	○	○	○	○	○
To go to work or study / school	○	○	○	○	○

The lockdown has limited the amount that people are able to and chose to move around. How has your travel behaviour changed for each of the following?

	I do much more of this	I do more of this	I do the same amount of this	I do less of this	I do none of this
Cycling for pleasure / exercise	○	○	○	○	○
Cycling to food shops	○	○	○	○	○
Cycling to get to work	○	○	○	○	○
Walking for pleasure / exercise	○	○	○	○	○
Walking to food shops	○	○	○	○	○
Walking to get to work	○	○	○	○	○
Driving to food shops	○	○	○	○	○
Driving to get to work	○	○	○	○	○

Thinking of the following situations, please indicate what you might do in each case? (Tick all that apply.)

	Stop for a Coffee / Tea / Sparkling drink	Stop for lunch	Stop for dinner	Stop for a snack/treat (eg: sandwich or Ice Cream)	Visit shops (not food shops)	Unlikely to stop
Cycling or Walking for a full day	☐	☐	☐	☐	☐	☐
Taking a half day cycle or walk (hike)	☐	☐	☐	☐	☐	☐
Taking a short walk or cycle ride up to 1 hour	☐	☐	☐	☐	☐	☐
Cycling or walking to work or study	☐	☐	☐	☐	☐	☐

Roughly how much would you spend on activities for each of these situations? (Please include any activities you would consider part of your day / cycle / walk.)

	€0 / £0	€1 - €10 / up to £10	€10 - €20 / £10 - £20	€20 - €50 / £20 - £50	€50 / £50 and above
Cycling or Walking for a full day	○	○	○	○	○
Taking a half day cycle or walk (hike)	○	○	○	○	○
Taking a short walk or cycle ride up to 1 hour	○	○	○	○	○
Cycling or walking to work or study	○	○	○	○	○

In normal circumstances, what is your typical annual income?

- ☐ Under 15,000
- ☐ Between 15,000 and 29,999
- ☐ Between 30,000 and 49,999
- ☐ Between 50,000 and 74,999
- ☐ Over 75,000
- ☐ I would prefer not to answer

Are you:

- ☐ Male
- ☐ Female
- ☐ Trans
- ☐ Would prefer not to answer
- ☐ Other (please specify)

Thank you for responding to our survey. We will share the results in the coming weeks.

Please provide your name and email address or phone number in the box below to be entered into a draw for a commuter bicycle. The deadline for entry in the prize draw will be two weeks after survey publication.

The winner will be given a voucher for a commuter bicycle worth 500 Euro / £450, from a local cycle store.

Please note, employees and members of their immediate families (including any live-in partner) of Transport Research NI Ltd., the NI executive, councils and administrative districts, Republic of Ireland government Departments, County Councils or affiliated bodies and agencies and/or those associated with the operation or promotion of the survey, including without limitation the provider of the prize or client, are ineligible to enter. Any such entries are invalid.

Transport Research Partners are very grateful for your time in completing this survey. If you have any questions about our work please contact the team by email: james@transportresearch.org

A.3 Model calculation, detailed spreadsheets

A.3.1 Population by catchment

Table A3.1: Carlingford Lough Greenway small areas, catchment and population census data

	500m	1km	2kms	5kms	Catchment	Distance factor Cycling	Distance factor Walking	ALL POPN	POPN IN CATCHMENT
GUID	**%**	**Add %**	**Add %**	**Add %**	**TOTAL**			**Total population all ages within adjacent SAP and WARDs**	**Total population within 5kms**
Ballybot	0%	0%	40%	60%	100%	34.18%	29.81%	2192	2192
Bessbrook	0%	0%	0%	30%	30%	8.94%	7.89%	2579	774
Camlough	0%	0%	0%	25%	25%	7.45%	6.57%	3482	871
Daisy Hill	0%	25%	70%	5%	100%	41.32%	36.64%	3155	3155
Derryleckagh	0%	0%	5%	65%	70%	21.41%	18.84%	4458	3121
Derrymore	0%	0%	15%	85%	100%	31.45%	27.61%	3195	3195
Donaghmore	0%	0%	0%	10%	10%	2.98%	2.63%	3473	347
Drumalane	20%	70%	10%	0%	100%	46.60%	44.32%	3352	3352
Drumgullion	0%	0%	10%	90%	100%	30.90%	27.17%	3098	3098
Fathom	10%	10%	30%	50%	100%	37.08%	33.32%	3110	3110
Forkhill	0%	0%	0%	3%	3%	0.89%	0.79%	4356	131
St Marys	40%	60%	0%	0%	100%	48.85%	47.21%	2284	2284
St Patricks	0%	20%	75%	5%	100%	41.10%	36.24%	3530	3530
Tullyhappy	0%	0%	0%	5%	5%	1.49%	1.31%	3366	168
Windsor Hil	0%	0%	15%	85%	100%	31.45%	27.61%	3003	3003
147005001	0%	0%	0%	85%	85%	25.34%	22.35%	225	191
147005002	30%	30%	40%	0%	100%	46.15%	42.99%	141	141
147005003	100%	0%	0%	0%	100%	54.25%	53.50%	314	314
147005004	100%	0%	0%	0%	100%	54.25%	53.50%	199	199
147005005	10%	20%	65%	5%	100%	42.45%	38.08%	227	227
147005006	100%	0%	0%	0%	100%	54.25%	53.50%	243	243
147005008	5%	10%	60%	25%	100%	39.14%	34.61%	400	400
147005009	40%	40%	20%	0%	100%	47.95%	45.63%	146	146
147005010	0%	0%	30%	65%	95%	31.60%	27.62%	290	276
147018001	15%	15%	40%	30%	100%	40.17%	36.40%	163	163
147018002	15%	15%	40%	30%	100%	40.17%	36.40%	220	220
147018003	0%	5%	45%	50%	100%	35.50%	31.09%	247	247
147018004	45%	55%	0%	0%	100%	49.30%	47.74%	303	303
147018005	100%	0%	0%	0%	100%	54.25%	53.50%	263	263

147018006	30%	70%	0%	0%	100%	47.95%	46.16%	160	160
147024001	0%	0%	0%	5%	5%	1.49%	1.31%	224	11
147024002	0%	0%	0%	100%	100%	29.81%	26.29%	280	280
147024003	0%	0%	0%	20%	20%	5.96%	5.26%	358	72
147024004	0%	0%	0%	50%	50%	14.91%	13.14%	358	179
147026002	0%	0%	0%	50%	50%	14.91%	13.14%	287	144
147026004	0%	0%	0%	20%	20%	5.96%	5.26%	366	73
147032001	0%	0%	0%	3%	3%	0.89%	0.79%	275	8
147032002	0%	0%	10%	90%	100%	30.90%	27.17%	257	257
147032003	0%	0%	5%	70%	75%	22.91%	20.16%	283	212
147032004	0%	0%	0%	50%	50%	14.91%	13.14%	359	180
147033001	0%	0%	0%	30%	30%	8.94%	7.89%	450	135
147033002	0%	0%	0%	35%	35%	10.43%	9.20%	296	104
147033003	0%	0%	0%	40%	40%	11.92%	10.52%	270	108
TOTALS								56,237	37,585

Table A3: Ulster Canal Greenway small areas within catchment and population census data

	500m	**1km**	**2kms**	**5kms**	**Catchment**	**Distance factor Cycling**	**Distance factor Walking**	**ALL POPN**	**POPN IN CATCHMENT**
GUID	**%**	**Add %**	**Add %**	**Add %**	**TOTAL**			**Total population all ages within adjacent SAP and WARDs**	**Total population within 5kms**
Caledon	0%	0%	0%	2%	2%	0.61%	0.57%	2510	50
Derrynoose	0%	0%	0%	10%	10%	3.06%	2.83%	3475	348
Killylea	3%	7%	10%	45%	65%	22.08%	20.47%	2474	1608
Rosslea	0%	0%	0%	5%	5%	1.53%	1.41%	2167	108
177008001	20%	20%	40%	20%	100%	39.95%	37.86%	248	248
177008002	0%	0%	0%	100%	100%	30.62%	28.25%	149	149
177008003	0%	0%	0%	100%	100%	30.62%	28.25%	171	171
177008004	0%	0%	10%	90%	100%	31.36%	28.71%	237	237
177008005	0%	20%	70%	10%	100%	38.21%	33.86%	329	329
177013001	0%	0%	0%	5%	5%	1.53%	1.41%	178	9
177020001	0%	0%	0%	90%	90%	27.56%	25.42%	154	139
177020002	0%	5%	20%	75%	100%	32.70%	29.77%	138	138
177020004	0%	0%	0%	55%	55%	16.84%	15.54%	214	118
177022001	0%	5%	20%	73%	98%	32.09%	29.20%	189	185
177022002	0%	0%	0%	5%	5%	1.53%	1.41%	150	8

177023003	0%	0%	0%	8%	8%	2.45%	2.26%	183	15
177023004	0%	0%	0%	5%	5%	1.53%	1.41%	193	10
177039001	0%	0%	0%	60%	60%	18.37%	16.95%	218	131
177039002	15%	10%	25%	50%	100%	36.64%	34.63%	266	266
177041002	60%	40%	0%	0%	100%	47.33%	49.18%	122	122
177041003	40%	15%	35%	10%	100%	42.93%	42.41%	223	223
177041004	0%	10%	20%	70%	100%	33.31%	30.37%	195	195
177042001	0%	0%	0%	15%	15%	4.59%	4.24%	215	32
177043001	0%	0%	0%	85%	85%	26.02%	24.01%	198	168
177043002	10%	10%	40%	40%	100%	36.76%	33.97%	173	173
177046001	0%	0%	10%	85%	95%	29.82%	27.30%	164	156
177046002	5%	10%	25%	60%	100%	34.66%	31.94%	154	154
177046003	0%	0%	0%	100%	100%	30.62%	28.25%	302	302
177046004	0%	0%	0%	40%	40%	12.25%	11.30%	134	54
177049001	0%	0%	5%	60%	65%	20.27%	18.59%	119	77
177049002	0%	0%	0%	40%	40%	12.25%	11.30%	152	61
177052001	0%	0%	0%	65%	65%	19.90%	18.36%	199	129
177052002	0%	0%	25%	75%	100%	32.46%	29.40%	182	182
177058001	5%	15%	30%	50%	100%	35.64%	32.77%	206	206
177058002	0%	5%	95%	0%	100%	38.24%	33.21%	140	140
177058003	20%	50%	30%	0%	100%	42.85%	41.00%	177	177
177058004	90%	10%	0%	0%	100%	49.62%	53.64%	181	181
177058005	0%	0%	0%	90%	90%	27.56%	25.42%	146	131
177058006	10%	30%	40%	20%	100%	39.19%	36.37%	142	142
177058007	10%	60%	30%	0%	100%	42.09%	39.52%	288	288
177058008	0%	100%	0%	0%	100%	42.75%	40.26%	231	231
177058009	25%	55%	20%	0%	100%	43.71%	42.49%	186	186
177058010	100%	0%	0%	0%	100%	50.38%	55.12%	203	203
177058011	100%	0%	0%	0%	100%	50.38%	55.12%	185	185
177058012	100%	0%	0%	0%	100%	50.38%	55.12%	165	165
177058013	100%	0%	0%	0%	100%	50.38%	55.12%	218	218
177058014	10%	30%	60%	0%	100%	40.66%	37.29%	168	168
177058015	0%	30%	70%	0%	100%	39.43%	35.06%	248	248
177058016	100%	0%	0%	0%	100%	50.38%	55.12%	210	210
177058017	70%	30%	0%	0%	100%	48.09%	50.66%	216	216
177058018	100%	0%	0%	0%	100%	50.38%	55.12%	150	150
177058019	100%	0%	0%	0%	100%	50.38%	55.12%	127	127
177058020	50%	50%	0%	0%	100%	46.56%	47.69%	214	214

177058021	40%	60%	0%	0%	100%	45.80%	46.20%	239	239
177058022	100%	0%	0%	0%	100%	50.38%	55.12%	143	143
177058023	100%	0%	0%	0%	100%	50.38%	55.12%	170	170
177058024	50%	50%	0%	0%	100%	46.56%	47.69%	165	165
177059001	100%	0%	0%	0%	100%	50.38%	55.12%	157	157
177059002	0%	100%	0%	0%	100%	42.75%	40.26%	220	220
177059003	70%	30%	0%	0%	100%	48.09%	50.66%	267	267
177059004	0%	100%	0%	0%	100%	42.75%	40.26%	156	156
177059005	10%	90%	0%	0%	100%	43.51%	41.74%	171	171
177059006	0%	70%	30%	0%	100%	41.33%	38.03%	220	220
177059008	100%	0%	0%	0%	100%	50.38%	55.12%	178	178
177059009	100%	0%	0%	0%	100%	50.38%	55.12%	152	152
177059010	100%	0%	0%	0%	100%	50.38%	55.12%	137	137
177062001	0%	0%	0%	50%	50%	15.31%	14.12%	175	88
177062004	5%	5%	30%	60%	100%	34.43%	31.57%	159	159
177064001	0%	0%	0%	30%	30%	9.19%	8.48%	190	57
177064002	0%	5%	30%	65%	100%	33.44%	30.23%	237	237
177064003	0%	0%	0%	100%	100%	30.62%	28.25%	178	178
177064004	0%	0%	0%	90%	90%	27.56%	25.42%	234	211
177067001	10%	20%	50%	20%	100%	38.71%	35.63%	148	148
177067002	0%	2%	15%	81%	98%	31.36%	28.61%	156	153
177068002	0%	0%	0%	50%	50%	15.31%	14.12%	214	107
177068003	0%	0%	0%	10%	10%	3.06%	2.83%	247	25
177069001	15%	20%	60%	5%	100%	40.44%	37.44%	196	196
177069002	50%	40%	10%	0%	100%	46.09%	46.95%	203	203
177069003	35%	20%	30%	15%	100%	42.18%	41.43%	237	237
TOTALS								24,925	14,453

Table A4: North West Greenway small areas within catchment and population census data

Northern Ireland		**500m**	**1km**	**2kms**	**5kms**	**Within catchment**	**ALL POPN**	**POPN IN CATCHMENT**
Ward Name (NI)	**GUID**	**%**	**Add %**	**Add %**	**Add %**	**TOTAL**	**Total population all ages within adjacent SAP and WARDs**	**Total population within 5kms**
Ballynashallog	95MM02			15%	85%	100%	3244	3244
Beechwood	95MM04				100%	100%	2151	2151
Brandywell	95MM05				100%	100%	2495	2495
Carn Hill	95MM06	25%	40%	35%		100%	2603	2603

Creggan Central	95MM10				100%	100%	2750	2750
Creggan South	95MM11				100%	100%	2277	2277
Crevagh	95MM12	2%	5%	15%	43%	65%	5858	3808
Culmore	95MM13			10%	55%	65%	8872	5767
Foyle Springs	95MM17		5%	90%	5%	100%	3749	3749
Pennyburn	95MM22	0%	5%	80%	15%	100%	2492	2492
Rosemount	95MM23			20%	80%	100%	2521	2521
Shantallow East	95MM24			95%	5%	100%	2503	2503
Shantallow West	95MM25	20%	25%	50%	5%	100%	6363	6363
Springtown	95MM26	40%	55%	5%		100%	3131	3131
Strand	95MM27			20%	80%	100%	3833	3833
The Diamond	95MM28				100%	100%	2351	2351
Westland	95MM30				100%	100%	2083	2083
Republic of Ireland								
	SA2017_057015001	85%	15%			100%	222	222
	SA2017_057015002	10%	35%	50%	5%	100%	240	240
	SA2017_057015003	10%	30%	35%	25%	100%	282	282
	SA2017_057015004		2%	20%	78%	100%	301	301
	SA2017_057015005	2%	10%	40%	45%	97%	267	259
	SA2017_057017001		5%	20%	50%	75%	249	187
	SA2017_057017002			80%	20%	100%	294	294
	SA2017_057017003			80%	20%	100%	253	253
	SA2017_057017004				100%	100%	289	289
	SA2017_057017005				100%	100%	286	286
	SA2017_057017007				100%	100%	334	334
	SA2017_057017008				100%	100%	241	241
	SA2017_057017009				100%	100%	294	294
	SA2017_057017010			95%	5%	100%	309	309
	SA2017_057017011			90%	10%	100%	266	266
	SA2017_057017012			2%	98%	100%	259	259
	SA2017_057017013	100%				100%	124	124
	SA2017_057017014	30%	40%	30%		100%	193	193
	SA2017_057018001			98%	2%	100%	200	200
	SA2017_057018002		5%	95%		100%	238	238
	SA2017_057018003		20%	80%		100%	203	203
	SA2017_057018004	40%	60%			100%	214	214
	SA2017_057018005		25%	75%		100%	278	278
	SA2017_057018006		55%	45%		100%	207	207
	SA2017_057018007			100%		100%	323	323
	SA2017_057018008		15%	85%		100%	203	203
	SA2017_057017006			10%	40%	50%	445	223
	SA2017_057018009	5%	95%			100%	153	153
	SA2017_057018010	80%	20%			100%	181	181

	SA2017_057018011		100%			100%	178	178
	SA2017_057018012	95%	5%			100%	165	165
	SA2017_057018013	100%				100%	296	296
	SA2017_057018014		100%			100%	191	191
	SA2017_057018016		99%	1%		100%	181	181
	SA2017_057021001	30%	40%	25%	5%	100%	197	197
	SA2017_057021002	2%	10%	35%	53%	100%	170	170
	SA2017_057021003	10%	50%	20%	20%	100%	224	224
	SA2017_057021004		2%	30%	68%	100%	223	223
	SA2017_057021005			45%	55%	100%	256	256
	SA2017_057021006	40%	60%			100%	240	240
	SA2017_057029001			100%		100%	219	219
	SA2017_057029002		10%	80%	10%	100%	212	212
	SA2017_057029003	10%	45%	40%	5%	100%	337	337
	SA2017_057029004			5%	75%	80%	332	266
	SA2017_057029005	5%			95%	100%	256	256
	SA2017_057063001	5%	10%	40%	43%	98%	179	175
	SA2017_057063002	60%	35%	5%		100%	219	219
	SA2017_057093002				60%	60%	260	156
	SA2017_057093003				35%	35%	237	83
	SA2017_057063003	70%	30%			100%	190	190
	SA2017_057063004	55%	10%	35%		100%	332	332
	SA2017_057063005	50%	50%			100%	304	304
	SA2017_057063006	20%	10%	30%	40%	100%	261	261
	SA2017_057063007	5%	10%	30%	55%	100%	212	212
	SA2017_057018015	2%	95%	3%		100%	185	185
	SA2017_057088001				100%	100%	147	147
	SA2017_057088002				30%	30%	293	88
	SA2017_057089001			30%	70%	100%	216	216
	SA2017_057122001				20%	20%	329	66
	SA2017_057122003				5%	5%	311	16
	SA2017_057051001				20%	20%	326	65
	SA2017_057122002				85%	85%	226	192
	SA2017_057089002	5%	10%	60%	25%	100%	245	245
	SA2017_057118003				80%	80%	371	297
	SA2017_057125001	20%	30%	40%	10%	100%	195	195
	SA2017_057118004				5%	5%	272	14
	SA2017_057125002	2%	5%	20%	65%	92%	258	237
	SA2017_057125003	20%	60%	20%	0%	100%	362	362
	SA2017_057095004				5%	5%	376	19
	SA2017_068145002				5%	5%	311	16
	SA2017_057145001				30%	30%	281	84
	SA2017_057095006				30%	30%	215	65

	SA2017_057125004	30%	40%	28%	2%	100%	181	181
	TOTALS						77,595	69,407

A.2.2 Zone based trip production

Table A5: Trip production, Carlingford Lough

NI		Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
Ward	GUID	18-34 YO	35-54 YO	55+ YO	0 cars	1 car	2+ cars	18-34 YO	35-54 YO	55+ YO	ALL	18-34 YO	35-54 YO	55+ YO	ALL	
Ballybot	95VV02	486	612	607	47%	40%	14%	58	69	74	201	95	120	119	333	534
Bessbrook	95VV03	584	699	639	30%	44%	26%	70	83	80	233	110	131	120	361	594
Camlough	95VV06	797	973	684	12%	41%	46%	97	121	88	306	140	171	120	432	737
Daisy Hill	95VV10	827	896	593	36%	48%	16%	99	104	73	275	160	173	115	448	723
Derrylackagh	95VV11	1012	1329	889	7%	43%	49%	123	168	115	406	176	231	155	561	967
Derrymore	95VV12	775	875	674	23%	44%	33%	93	106	85	284	142	161	124	427	710
Donaghmore	95VV13	726	1000	719	6%	28%	66%	89	127	95	311	120	165	119	404	716
Drumalane	95VV14	880	959	759	22%	45%	33%	106	116	96	318	162	176	139	477	795
Drumgullion	95VV15	798	896	629	31%	45%	24%	96	106	78	279	151	169	119	439	719
Fathom	95VV16	692	901	701	12%	42%	46%	84	113	90	286	122	158	123	403	690
Forkhill	95VV17	1003	1209	811	13%	39%	48%	122	150	104	376	176	212	142	530	907
St Marys	95VV27	556	671	642	36%	45%	19%	66	78	79	224	107	129	123	359	582
St Patricks	95VV28	854	1007	855	30%	42%	27%	102	119	107	328	160	188	160	508	836
Tullyhappy	95VV29	670	946	708	9%	33%	58%	82	119	92	293	114	160	120	394	687
Windsor Hill	95VV30	696	856	818	12%	50%	38%	84	107	104	295	125	154	147	427	722
										NI - NI	4,415			NI - IRL	6,504	9,510

ROI	Population count by age				Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
SAP	18-34 YO	35-54 YO	55+ YO	Ck	0 cars	1 car	2+ cars	18-34 YO	35-54 YO	55+ YO	ALL	18-34 YO	35-54 YO	55+ YO	ALL	
147005001	40	67	53	100%	3%	37%	61%	5	9	7	20	7	11	9	27	47
147005002	17	38	52	100%	10%	40%	50%	2	5	7	14	3	7	9	19	32
147005003	50	37	48	100%	14%	64%	22%	6	5	6	17	9	7	9	25	42
147005004	36	62	61	100%	21%	56%	23%	4	8	8	19	7	12	11	30	49
147005005	30	69	69	100%	6%	42%	52%	4	9	9	21	5	12	12	29	50
147005006	65	69	46	100%	8%	51%	41%	8	9	6	22	12	12	8	32	55
147005008	69	122	76	100%	17%	50%	32%	8	15	10	33	13	22	14	49	82
147005009	29	45	18	100%	2%	55%	43%	4	6	2	12	5	8	3	16	28
147005010	30	81	107	100%	5%	32%	63%	4	10	14	28	5	14	18	36	64
147018001	29	48	41	100%	8%	38%	54%	4	6	5	15	5	8	7	20	35
147018002	33	66	45	100%	3%	44%	53%	4	8	6	18	6	11	8	25	43
147018003	36	77	50	100%	5%	41%	54%	4	10	6	21	6	13	9	28	49
147018004	46	106	70	100%	8%	46%	45%	6	13	9	28	8	19	12	39	67

ROI	Population count by age				Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
147018005	65	70	59	100%	13%	61%	26%	8	9	7	24	12	13	11	36	60
147018006	23	60	27	100%	15%	52%	33%	3	7	3	14	4	11	5	20	34
147024001	33	70	52	100%	7%	29%	64%	4	9	7	20	5	12	9	26	46
147024002	47	80	70	100%	6%	41%	53%	6	10	9	25	8	14	12	34	59
147024003	51	103	64	100%	7%	32%	61%	6	13	8	28	9	17	11	37	64
147024004	63	106	85	100%	6%	33%	61%	8	13	11	32	11	18	14	43	75
147026002	49	87	60	100%	3%	47%	49%	6	11	8	25	9	15	10	34	59
147026004	50	108	88	100%	4%	25%	71%	6	14	12	32	8	18	14	40	72
147032001	46	85	53	100%	6%	39%	55%	6	11	7	23	8	15	9	31	55
147032002	54	76	49	100%	1%	31%	68%	7	10	6	23	9	12	8	29	52
147032003	52	77	66	100%	2%	31%	67%	6	10	9	25	9	13	11	32	57
147032004	73	93	89	100%	11%	25%	64%	9	12	12	32	12	16	15	43	75
147033001	68	128	137	100%	8%	47%	45%	8	16	18	42	12	23	24	59	101
147033002	45	80	86	100%	3%	28%	69%	6	10	11	27	7	13	14	35	62
147033003	49	62	84	100%	5%	44%	51%	6	8	11	25	8	11	15	34	58
										IRL - IRL	664			IRL - NI	907	1,571

Table A6: Trip production, Ulster Canal Greenway

NI		Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
Ward	GUID	18-34 YO	35-54 YO	55+ YO	0 cars	1 car	2+ cars	18-34 YO	35-54 YO	55+ YO	ALL	18-34 YO	35-54 YO	55+ YO	ALL	
Caledon		612	673	589	9%	35%	57%	75	85	77	236	104	115	100	319	556
Derrynoose		801	990	634	8%	40%	52%	97	125	82	304	138	171	109	419	723
Killylea		576	654	611	7%	32%	61%	70	83	80	233	97	110	103	310	543
Rosslea		491	585	581	12%	39%	50%	60	73	75	208	86	102	101	289	496
										NI - NI	982			NI - IRL	1,336	2,318

ROI	Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
SAP	18-34 YO	35-54 YO	55+ YO	0 cars	1 car	2+ cars	18-34 YO	35-54 YO	55+ YO	ALL	18-34 YO	35-54 YO	55+ YO	ALL	
177008001	49	65	134	2%	37%	61%	6	8	18	32	8	11	22	42	73
177008002	36	53	60	7%	46%	47%	4	7	8	19	6	9	11	26	45
177008003	40	78	53	11%	43%	46%	5	10	7	21	7	14	9	30	52
177008004	40	96	101	4%	33%	62%	5	12	13	30	7	16	17	40	70
177008005	116	106	107	5%	48%	47%	14	14	14	41	20	19	19	58	99
177013001	37	75	66	3%	33%	63%	5	10	9	23	6	12	11	30	52
177020001	35	63	56	2%	28%	71%	4	8	7	20	6	10	9	25	45
177020002	23	70	45	6%	41%	53%	3	9	6	18	4	12	8	24	41
177020004	47	94	73	3%	43%	54%	6	12	9	27	8	16	13	37	64
177022001	41	78	70	8%	33%	59%	5	10	9	24	7	13	12	32	56
177022002	43	55	52	7%	43%	50%	5	7	7	19	7	10	9	26	45

ROI	Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
177023003	50	48	85	5%	48%	48%	6	6	11	23	9	8	15	32	55
177023004	40	71	82	3%	38%	59%	5	9	11	25	7	12	14	33	57
177039001	49	108	61	3%	34%	63%	6	14	8	28	8	18	10	36	64
177039002	72	93	101	4%	34%	62%	9	12	13	34	12	16	17	44	78
177041002	29	55	38	6%	47%	47%	4	7	5	15	5	10	7	21	37
177041003	68	65	90	12%	39%	48%	8	8	12	28	12	11	16	39	67
177041004	45	68	82	7%	34%	59%	5	9	11	25	8	11	14	33	58
177042001	47	90	78	3%	23%	74%	6	12	10	28	8	15	13	35	62
177043001	47	81	70	2%	30%	67%	6	10	9	25	8	13	12	33	58
177043002	31	59	83	3%	31%	66%	4	8	11	22	5	10	14	29	51
177046001	38	67	59	1%	39%	59%	5	9	8	21	6	11	10	28	49
177046002	38	62	54	4%	45%	51%	5	8	7	20	7	11	9	27	46
177046003	80	114	108	9%	56%	35%	10	14	14	38	14	21	20	55	92
177046004	42	50	42	14%	48%	38%	5	6	5	17	8	9	8	24	41
177049001	31	39	49	11%	44%	45%	4	5	6	15	5	7	9	21	36
177049002	43	46	63	2%	43%	55%	5	6	8	19	7	8	11	26	45
177052001	33	74	92	4%	31%	65%	4	9	12	26	5	12	15	33	59
177052002	36	73	73	6%	35%	60%	4	9	10	23	6	12	12	31	54
177058001	39	85	82	4%	28%	68%	5	11	11	27	6	14	13	34	60
177058002	36	50	54	8%	42%	50%	4	6	7	18	6	9	9	24	42
177058003	42	64	71	8%	49%	43%	5	8	9	22	7	11	13	31	54
177058004	32	53	96	7%	51%	42%	4	7	12	23	6	9	17	32	55
177058005	35	51	60	4%	23%	72%	4	7	8	19	6	8	10	24	42
177058006	25	50	67	2%	38%	61%	3	6	9	18	4	8	11	24	42
177058007	76	131	81	11%	52%	38%	9	16	10	36	14	24	15	52	88
177058008	57	113	61	7%	48%	45%	7	14	8	29	10	20	11	41	70
177058009	72	87	27	26%	54%	21%	9	10	3	22	14	17	5	35	58
177058010	69	77	57	44%	52%	4%	8	9	7	24	14	15	11	41	64
177058011	52	58	75	25%	50%	25%	6	7	9	23	10	11	14	35	57
177058012	50	64	51	41%	53%	6%	6	7	6	19	10	13	10	33	52
177058013	70	114	34	13%	62%	25%	8	14	4	27	13	21	6	41	67
177058014	40	72	56	8%	35%	58%	5	9	7	21	7	12	10	29	50
177058015	76	103	69	15%	53%	32%	9	13	9	31	14	19	13	45	76
177058016	57	68	85	27%	58%	15%	7	8	10	25	11	13	16	40	66
177058017	56	72	88	11%	58%	31%	7	9	11	27	10	13	16	40	66
177058018	45	77	28	5%	57%	37%	5	10	4	19	8	14	5	27	46
177058019	29	48	50	20%	58%	23%	3	6	6	16	5	9	9	24	39
177058020	57	86	71	3%	50%	47%	7	11	9	27	10	15	12	37	64
177058021	88	100	51	7%	46%	47%	11	13	7	30	15	18	9	42	72
177058022	37	69	37	47%	46%	7%	4	8	4	17	7	14	7	28	45
177058023	45	37	88	16%	59%	25%	5	5	11	21	8	7	16	32	53

ROI	Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
177058024	57	79	29	12%	47%	42%	7	10	4	20	10	14	5	29	50
177059001	58	51	48	38%	50%	12%	7	6	6	19	11	10	9	31	49
177059002	86	79	55	51%	46%	3%	10	9	7	26	17	16	11	44	70
177059003	82	90	95	27%	58%	16%	10	11	12	32	16	17	18	51	84
177059004	49	59	48	28%	49%	22%	6	7	6	19	9	11	9	30	48
177059005	53	64	54	50%	36%	14%	6	7	7	20	10	13	11	33	53
177059006	87	63	70	29%	52%	19%	10	7	9	26	17	12	13	42	69
177059008	73	54	51	59%	37%	4%	9	6	6	21	15	11	10	36	56
177059009	56	51	45	25%	54%	21%	7	6	6	18	11	10	9	29	47
177059010	40	60	37	27%	60%	12%	5	7	5	16	8	12	7	27	43
177062001	29	77	69	9%	42%	48%	4	10	9	22	5	13	12	31	53
177062004	31	63	65	1%	35%	63%	4	8	9	20	5	10	11	26	47
177064001	48	77	65	3%	36%	61%	6	10	9	24	8	13	11	32	56
177064002	68	87	82	5%	31%	64%	8	11	11	30	11	14	14	39	70
177064003	68	65	45	6%	37%	57%	8	8	6	22	12	11	8	30	53
177064004	65	82	87	9%	33%	58%	8	10	11	30	11	14	15	40	69
177067001	43	47	58	6%	37%	57%	5	6	8	19	7	8	10	25	44
177067002	43	55	58	5%	28%	68%	5	7	8	20	7	9	10	26	46
177068002	54	72	88	3%	32%	65%	7	9	12	27	9	12	15	35	63
177068003	76	97	74	4%	34%	62%	9	12	10	31	13	16	12	41	73
177069001	50	83	63	9%	36%	55%	6	10	8	25	9	14	11	34	58
177069002	49	78	76	3%	33%	63%	6	10	10	26	8	13	13	34	60
177069003	46	116	75	6%	38%	56%	6	15	10	30	8	20	13	40	71
									IRL - IRL	1,789			IRL - NI	2,522	4,311

Table A7: Trip production, NW Greenway

NI	Population count by age			Percentage car ownership HHD in zone			Daily trip productions Non-cross Border proportionate to zones areas within catchment				Daily trip productions Cross Border trips proportionate to zones areas within catchment				ALL TRIPS Catchment / zone
GUID	18-34 YO	35-54 YO	55+ YO	0 cars	1 car	2+ cars	18-34 YO	35-54 YO	55+ YO	ALL	18-34 YO	35-54 YO	55+ YO	ALL	
95MM02	667	832	1120	13%	38%	49%	81	104	144	329	116	145	195	457	786
95MM04	496	546	713	43%	43%	14%	59	62	88	208	97	106	139	342	551
95MM05	585	628	644	57%	36%	7%	70	68	78	216	117	125	129	371	587
95MM06	620	638	669	38%	49%	13%	74	73	82	229	121	125	131	376	605
95MM10	713	680	495	52%	39%	9%	85	75	60	220	141	135	98	374	594
95MM11	576	574	497	54%	37%	9%	68	63	61	192	114	114	99	327	519
95MM12	1529	1486	861	33%	44%	23%	183	174	107	464	290	282	163	735	1,199
95MM13	2017	2320	1505	24%	44%	32%	243	279	190	712	371	427	277	1,074	1,786
95MM17	933	1049	902	25%	42%	33%	112	126	114	352	172	193	166	531	882

95MM22	514	587	940	21%	49%	30%	62	71	118	251	95	109	174	377	628
95MM23	762	682	623	47%	41%	11%	91	76	76	243	150	134	122	406	649
95MM24	614	573	638	42%	44%	15%	73	65	78	217	120	111	124	355	572
95MM25	1703	1545	894	37%	44%	20%	204	179	111	493	326	296	171	794	1,287
95MM26	843	839	680	24%	45%	31%	101	101	85	288	156	155	126	436	724
95MM27	1612	858	885	56%	33%	12%	192	93	108	394	318	169	175	662	1,056
95MM28	613	665	616	59%	34%	6%	73	71	75	219	123	133	123	379	598
95MM30	496	541	614	52%	37%	11%	59	60	75	194	98	107	121	326	520
									NI - NI	**5,219**			**NI - IRL**	**8,324**	**13,542**

IRL	**Population count within zone AND catchment**			**Percentage car ownership HHD in zone**			**Daily trip productions Non-cross Border proportionate to zones areas within catchment**				**Daily trip productions Cross Border trips proportionate to zones areas within catchment**				**ALL TRIPS Catchment / zone**
GUID	**18-34 YO**	**35-54 YO**	**55+ YO**	**0 cars**	**1 car**	**2+ cars**	**18-34 YO**	**35-54 YO**	**55+ YO**	**ALL**	**18-34 YO**	**35-54 YO**	**55+ YO**	**ALL**	
SA2017_057015001	48	79	35	11%	63%	26%	46	79	35	160	15	22	11	48	208
SA2017_057015002	46	67	50	11%	68%	21%	44	67	50	160	14	19	16	49	209
SA2017_057015003	44	92	59	8%	43%	49%	43	93	61	197	13	27	17	56	253
SA2017_057015004	16	26	16	0%	37%	63%	16	26	17	59	4	8	4	17	76
SA2017_057015005	17	54	25	5%	54%	41%	16	55	26	98	5	16	7	28	126
SA2017_057017001	22	26	25	9%	42%	49%	21	26	26	74	6	8	7	21	95
SA2017_057017002	48	107	21	10%	53%	37%	46	107	21	175	14	31	6	51	226
SA2017_057017003	47	81	43	9%	55%	36%	45	82	44	170	14	23	13	50	220
SA2017_057017004	66	70	82	19%	45%	36%	64	68	83	215	20	20	25	64	279
SA2017_057017005	50	53	32	17%	50%	34%	48	52	33	133	15	15	10	40	172
SA2017_057017006	10	20	10	6%	49%	45%	9	20	10	40	3	6	3	11	51
SA2017_057017007	53	78	47	5%	58%	37%	51	79	48	178	16	22	14	52	230
SA2017_057017008	46	73	39	11%	58%	30%	44	73	39	156	14	21	12	46	203
SA2017_057017009	71	71	79	19%	61%	20%	68	69	78	215	22	20	25	67	282
SA2017_057017010	83	91	33	12%	58%	31%	80	91	33	204	25	26	10	61	264
SA2017_057017011	59	85	51	12%	45%	43%	57	85	52	194	17	24	15	57	251
SA2017_057017012	12	38	31	6%	41%	53%	12	39	32	82	3	11	9	23	106
SA2017_057017013	16	45	37	9%	63%	28%	15	45	37	98	5	13	11	29	126
SA2017_057017014	31	64	49	5%	43%	52%	30	65	51	146	9	19	14	42	188
SA2017_057018001	29	53	77	15%	33%	52%	28	53	80	160	8	15	22	46	206
SA2017_057018002	44	88	35	38%	52%	10%	42	81	34	157	14	23	11	49	206
SA2017_057018003	32	41	106	42%	50%	8%	30	37	103	171	10	11	35	56	227
SA2017_057018004	29	45	102	30%	51%	19%	28	43	101	171	9	12	32	54	225
SA2017_057018005	60	75	86	39%	47%	14%	57	69	84	211	19	20	28	67	277
SA2017_057018006	30	48	98	29%	53%	19%	29	46	97	171	9	13	31	53	225
SA2017_057018007	67	108	18	5%	53%	42%	65	110	18	193	20	31	5	56	249
SA2017_057018008	43	71	15	5%	66%	30%	41	72	15	128	13	20	5	38	166
SA2017_057018009	32	35	67	59%	38%	3%	30	30	65	125	11	9	22	42	167

SA2017_057018010	36	52	42	12%	57%	31%	35	52	42	129	11	15	13	38	167
SA2017_057018011	42	51	45	10%	56%	35%	40	51	46	137	13	15	13	41	178
SA2017_057018012	30	34	68	22%	51%	26%	29	33	68	130	9	9	21	40	169
SA2017_057018013	71	69	93	9%	61%	30%	68	69	94	231	22	20	28	69	300
SA2017_057018014	52	50	30	18%	61%	21%	50	49	30	128	16	14	9	39	168
SA2017_057018015	39	53	48	28%	47%	25%	37	50	48	136	12	15	15	42	177
SA2017_057018016	37	43	85	45%	46%	10%	35	39	83	157	12	11	28	51	208
SA2017_057021001	32	60	40	11%	43%	46%	31	60	41	132	9	17	11	38	171
SA2017_057021002	11	35	20	14%	56%	30%	11	35	20	66	3	10	6	19	85
SA2017_057021003	22	65	52	13%	55%	32%	21	65	52	139	7	19	16	41	179
SA2017_057021004	26	48	62	16%	43%	41%	25	47	63	135	8	14	18	39	174
SA2017_057021005	44	83	67	7%	29%	64%	43	84	70	198	12	25	18	55	253
SA2017_057021006	69	71	35	30%	44%	26%	66	67	35	168	21	20	11	52	220
SA2017_057029001	49	73	12	1%	60%	38%	47	75	12	134	14	21	4	39	174
SA2017_057029002	45	61	26	6%	74%	19%	43	62	26	130	14	17	8	39	169
SA2017_057029003	54	99	102	25%	39%	36%	52	95	103	250	16	28	31	75	325
SA2017_057029004	14	32	21	6%	38%	56%	13	32	22	67	4	9	6	19	86
SA2017_057029005	22	53	34	9%	41%	50%	22	53	35	110	6	15	10	32	142
SA2017_057063001	17	36	37	18%	39%	42%	16	35	38	89	5	10	11	26	115
SA2017_057063001	26	55	57	18%	39%	42%	25	54	58	137	8	16	17	40	177
SA2017_057063002	22	44	119	10%	54%	36%	21	44	121	186	7	13	35	55	241
SA2017_057063003	18	40	106	13%	57%	30%	17	40	107	164	5	11	32	49	212
SA2017_057063004	70	100	63	7%	42%	51%	68	102	65	235	20	29	18	67	302
SA2017_057063005	40	101	62	3%	40%	57%	39	104	65	207	11	30	17	58	266
SA2017_057063006	46	76	74	5%	47%	48%	45	77	76	198	13	22	21	57	255
SA2017_057063007	21	32	42	9%	42%	49%	20	33	43	96	6	9	12	28	124
SA2017_057088001	20	35	20	10%	54%	36%	19	35	20	74	6	10	6	22	95
SA2017_057088002	48	79	84	8%	52%	40%	46	80	86	212	14	23	25	62	273
SA2017_057089001	29	38	46	11%	48%	41%	28	38	46	112	8	11	13	33	144
SA2017_057089002	53	72	79	5%	61%	34%	51	73	80	204	16	21	24	60	264
SA2017_057093002	6	13	10	11%	46%	44%	5	13	10	28	2	4	3	8	36
SA2017_057093003	43	74	62	20%	56%	24%	41	72	62	175	13	21	19	53	228
SA2017_057095004	65	112	96	7%	50%	43%	63	113	98	275	19	32	28	79	354
SA2017_057095006	36	106	65	7%	51%	42%	35	107	66	209	11	31	19	60	269
SA2017_057118003	12	31	17	6%	30%	65%	12	31	18	60	3	9	5	17	77
SA2017_057118004	54	67	90	16%	55%	29%	52	66	90	208	16	19	27	63	271
SA2017_057122001	51	94	85	5%	41%	54%	50	96	88	234	14	28	24	66	300
SA2017_057122002	37	56	47	8%	52%	41%	36	57	48	140	11	16	14	41	181
SA2017_057122003	65	82	78	7%	39%	54%	63	83	81	228	18	24	22	65	292
SA2017_057125001	34	58	52	8%	42%	50%	33	59	54	145	10	17	15	42	187
SA2017_057125002	17	31	26	6%	28%	66%	17	31	27	75	5	9	7	21	96
SA2017_057125003	70	117	58	21%	55%	24%	67	114	58	238	22	32	18	72	311

SA2017_057125004	30	56	57	6%	41%	53%	29	57	59	145	9	16	16	41	186
SA2017_057145001	42	87	57	8%	43%	49%	41	88	59	188	12	25	16	54	241
SA2017_068145002	46	91	70	3%	42%	55%	45	93	73	211	13	27	20	60	270
									IRL - IRL	11,291			IRL - NI	3,336	14,627

Table A8: Initial walking and cycling trips CLG

NI	Daily trip productions Non-cross Border proportionate to zones areas within catchment (NI - NI)			Daily trip productions Cross Border trips proportionate to zones areas within catchment (NI - IRL)			Distance Factors		ALL TRIPS Catchment / zone		
GUID	ALL	Bicycle	Walk	ALL	Bicycle	Walk	Cycling	Walking	ALL	Bicycle	Walk
Ballybot	90	1.45	13.20	33	0.63	1.11	34%	30%	5	0.71	4.27
Bessbrook	105	1.67	15.28	36	0.69	1.20	9%	8%	2	0.21	1.30
Camlough	138	2.20	20.08	43	0.82	1.44	7%	7%	2	0.23	1.41
Daisy Hill	124	1.98	18.09	45	0.85	1.49	41%	37%	8	1.17	7.17
Derrylackagh	182	2.92	26.64	56	1.07	1.87	21%	19%	6	0.85	5.37
Derrymore	128	2.04	18.66	43	0.81	1.42	31%	28%	6	0.90	5.54
Donaghmore	140	2.24	20.44	40	0.77	1.35	3%	3%	1	0.09	0.57
Drumalane	143	2.29	20.87	48	0.91	1.59	47%	44%	11	1.49	9.95
Drumgullion	126	2.01	18.36	44	0.84	1.46	31%	27%	6	0.88	5.39
Fathom	129	2.06	18.81	40	0.77	1.34	37%	33%	8	1.05	6.72
Forkhill	169	2.71	24.74	53	1.01	1.77	1%	1%	0	0.03	0.21
St Marys	101	1.61	14.69	36	0.68	1.20	49%	47%	9	1.12	7.50
St Patricks	148	2.36	21.57	51	0.97	1.69	41%	36%	10	1.37	8.43
Tullyhappy	132	2.11	19.28	39	0.75	1.31	1%	1%	0	0.04	0.27
Windsor Hill	133	2.12	19.35	43	0.81	1.42	31%	28%	7	0.92	5.74
Sub Totals									81	11	70

IRL	Daily trip productions Non-cross Border proportionate to zones areas within catchment (IRL - IRL)			Daily trip productions Cross Border trips proportionate to zones areas within catchment (IRL-NI)			Distance Factors		ALL TRIPS Catchment / zone		
GUID	ALL	Bicycle	Walk	ALL	Bicycle	Walk	Cycling	Walking	ALL	Bicycle	Walk
147005001	14	0.24	5.03	12	0.23	0.40	25%	22%	1	0.12	1.21
147005002	9	0.16	3.34	8	0.16	0.28	46%	43%	2	0.15	1.56
147005003	12	0.20	4.07	11	0.22	0.38	54%	54%	3	0.22	2.38
147005004	14	0.23	4.79	13	0.26	0.45	54%	54%	3	0.26	2.80
147005005	15	0.25	5.26	13	0.25	0.43	42%	38%	2	0.21	2.17
147005006	16	0.27	5.52	14	0.28	0.48	54%	54%	4	0.29	3.21
147005008	23	0.39	8.09	22	0.42	0.73	39%	35%	3	0.32	3.05
147005009	8	0.14	2.85	7	0.14	0.24	48%	46%	2	0.13	1.41
147005010	20	0.33	6.91	16	0.31	0.55	32%	28%	2	0.20	2.06
147018001	10	0.18	3.68	9	0.17	0.30	40%	36%	2	0.14	1.45

147018002	13	0.22	4.51	11	0.21	0.37	40%	36%	2	0.17	1.78
147018003	14	0.25	5.09	13	0.24	0.42	36%	31%	2	0.17	1.71
147018004	20	0.33	6.88	18	0.34	0.59	49%	48%	4	0.33	3.56
147018005	17	0.28	5.87	16	0.31	0.54	54%	54%	4	0.32	3.43
147018006	10	0.16	3.35	9	0.17	0.30	48%	46%	2	0.16	1.69
147024001	14	0.24	4.87	12	0.22	0.39	1%	1%	0	0.01	0.07
147024002	17	0.30	6.15	15	0.29	0.51	30%	26%	2	0.18	1.75
147024003	19	0.33	6.83	16	0.31	0.55	6%	5%	0	0.04	0.39
147024004	23	0.38	7.96	19	0.37	0.64	15%	13%	1	0.11	1.13
147026002	17	0.30	6.12	15	0.29	0.51	15%	13%	1	0.09	0.87
147026004	22	0.38	7.80	18	0.34	0.60	6%	5%	0	0.04	0.44
147032001	16	0.28	5.74	14	0.27	0.47	1%	1%	0	0.00	0.05
147032002	16	0.27	5.64	13	0.25	0.44	31%	27%	2	0.16	1.65
147032003	17	0.30	6.16	14	0.28	0.48	23%	20%	1	0.13	1.34
147032004	23	0.38	7.97	19	0.36	0.64	15%	13%	1	0.11	1.13
147033001	29	0.50	10.34	26	0.50	0.88	9%	8%	1	0.09	0.88
147033002	19	0.32	6.70	16	0.30	0.52	10%	9%	1	0.06	0.66
147033003	17	0.29	6.09	15	0.29	0.51	12%	11%	1	0.07	0.69
Sub Totals									**49**	**4**	**45**

Table A9: Initial walking and cycling trips UCG

NI	Daily trip productions Non-cross Border proportionate to zones areas within catchment (NI - NI)			Daily trip productions Cross Border trips proportionate to zones areas within catchment (NI - IRL)			Distance Factors		ALL TRIPS Catchment / zone		
WARD	**ALL**	**Bicycle**	**Walk**	**ALL**	**Bicycle**	**Walk**	**Cycling**	**Walking**	**ALL**	**Bicycle**	**Walk**
Caledon	35	0.57	5.17	96	1.83	3.19	1%	1%	0.06	0.01	0.05
Derrynoose	46	0.73	6.67	126	2.39	4.19	3%	3%	0.40	0.10	0.31
Killylea	35	0.56	5.11	93	1.77	3.10	22%	20%	2.19	0.51	1.68
Rosslea	31	0.50	4.55	87	1.65	2.89	2%	1%	0.14	0.03	0.11
Sub Totals									**3**	**1**	**2**

IRL	Daily trip productions Non-cross Border proportionate to zones areas within catchment (IRL - IRL)			Daily trip productions Cross Border trips proportionate to zones areas within catchment (IRL-NI)			Distance Factors		ALL TRIPS Catchment / zone		
GUID	**ALL**	**Bicycle**	**Walk**	**ALL**	**Bicycle**	**Walk**	**Cycling**	**Walking**	**ALL**	**Bicycle**	**Walk**
177008001	6	0.11	2.24	21	0.40	0.69	40%	38%	1	0.20	1.11
177008002	4	0.06	1.32	13	0.25	0.43	31%	28%	1	0.10	0.50
177008003	4	0.07	1.51	15	0.29	0.50	31%	28%	1	0.11	0.57
177008004	6	0.10	2.14	20	0.38	0.66	31%	29%	1	0.15	0.80
177008005	8	0.14	2.91	29	0.55	0.96	38%	34%	2	0.26	1.31
177013001	5	0.08	1.61	15	0.28	0.49	2%	1%	0	0.01	0.03
177020001	4	0.07	1.40	13	0.24	0.42	28%	25%	1	0.08	0.46
177020002	4	0.06	1.23	12	0.23	0.40	33%	30%	1	0.09	0.49
177020004	5	0.09	1.92	18	0.35	0.61	17%	16%	0	0.07	0.39
177022001	5	0.08	1.69	16	0.30	0.53	32%	29%	1	0.12	0.65
177022002	4	0.06	1.33	13	0.25	0.43	2%	1%	0	0.00	0.02
177023003	5	0.08	1.63	16	0.30	0.53	2%	2%	0	0.01	0.05
177023004	5	0.08	1.74	16	0.31	0.54	2%	1%	0	0.01	0.03
177039001	6	0.09	1.96	18	0.35	0.61	18%	17%	1	0.08	0.44
177039002	7	0.12	2.39	22	0.42	0.74	37%	35%	1	0.20	1.08
177041002	3	0.05	1.08	11	0.20	0.36	47%	49%	1	0.12	0.71
177041003	6	0.10	1.97	19	0.37	0.65	43%	42%	1	0.20	1.11
177041004	5	0.08	1.75	16	0.31	0.55	33%	30%	1	0.13	0.70
177042001	6	0.09	1.95	17	0.33	0.58	5%	4%	0	0.02	0.11
177043001	5	0.09	1.79	16	0.31	0.54	26%	24%	1	0.10	0.56
177043002	4	0.08	1.57	14	0.27	0.48	37%	34%	1	0.13	0.70
177046001	4	0.07	1.48	14	0.26	0.46	30%	27%	1	0.10	0.53
177046002	4	0.07	1.37	13	0.25	0.44	35%	32%	1	0.11	0.58
177046003	8	0.13	2.65	27	0.52	0.91	31%	28%	1	0.20	1.01
177046004	3	0.06	1.17	12	0.23	0.40	12%	11%	0	0.04	0.18
177049001	3	0.05	1.05	10	0.20	0.35	20%	19%	0	0.05	0.26

177049002	4	0.07	1.36	13	0.25	0.43	12%	11%	0	0.04	0.20
177052001	5	0.09	1.80	17	0.31	0.55	20%	18%	1	0.08	0.43
177052002	5	0.08	1.63	15	0.29	0.51	32%	29%	1	0.12	0.63
177058001	5	0.09	1.87	17	0.32	0.56	36%	33%	1	0.15	0.80
177058002	4	0.06	1.24	12	0.23	0.41	38%	33%	1	0.11	0.55
177058003	4	0.08	1.57	16	0.30	0.52	43%	41%	1	0.16	0.86
177058004	5	0.08	1.61	16	0.31	0.54	50%	54%	1	0.19	1.15
177058005	4	0.06	1.32	12	0.23	0.39	28%	25%	1	0.08	0.44
177058006	4	0.06	1.29	12	0.23	0.40	39%	36%	1	0.11	0.61
177058007	7	0.12	2.52	26	0.49	0.86	42%	40%	2	0.26	1.34
177058008	6	0.10	2.04	20	0.39	0.68	43%	40%	1	0.21	1.10
177058009	4	0.08	1.57	18	0.34	0.59	44%	42%	1	0.18	0.92
177058010	5	0.08	1.67	20	0.39	0.68	50%	55%	2	0.24	1.30
177058011	5	0.08	1.59	17	0.33	0.58	50%	55%	1	0.21	1.19
177058012	4	0.07	1.37	16	0.31	0.55	50%	55%	1	0.19	1.05
177058013	5	0.09	1.88	20	0.39	0.68	50%	55%	2	0.24	1.41
177058014	4	0.07	1.50	14	0.27	0.48	41%	37%	1	0.14	0.74
177058015	6	0.10	2.15	23	0.43	0.76	39%	35%	1	0.21	1.02
177058016	5	0.09	1.78	20	0.39	0.67	50%	55%	2	0.24	1.36
177058017	5	0.09	1.89	20	0.38	0.66	48%	51%	2	0.23	1.29
177058018	4	0.06	1.32	13	0.26	0.45	50%	55%	1	0.16	0.98
177058019	3	0.05	1.09	12	0.23	0.40	50%	55%	1	0.14	0.82
177058020	5	0.09	1.90	19	0.36	0.62	47%	48%	1	0.21	1.21
177058021	6	0.10	2.10	21	0.40	0.70	46%	46%	2	0.23	1.29
177058022	3	0.06	1.17	14	0.27	0.47	50%	55%	1	0.16	0.91
177058023	4	0.07	1.47	16	0.30	0.53	50%	55%	1	0.19	1.10
177058024	4	0.07	1.44	15	0.28	0.49	47%	48%	1	0.16	0.92
177059001	4	0.06	1.31	15	0.29	0.51	50%	55%	1	0.18	1.01
177059002	5	0.09	1.80	22	0.42	0.74	43%	40%	1	0.22	1.02
177059003	6	0.11	2.27	26	0.49	0.86	48%	51%	2	0.29	1.58
177059004	4	0.06	1.32	15	0.28	0.49	43%	40%	1	0.15	0.73
177059005	4	0.07	1.41	17	0.32	0.56	44%	42%	1	0.17	0.82
177059006	5	0.09	1.86	21	0.40	0.70	41%	38%	1	0.20	0.98
177059008	4	0.07	1.45	18	0.34	0.60	50%	55%	1	0.21	1.13
177059009	4	0.06	1.29	14	0.27	0.48	50%	55%	1	0.17	0.98
177059010	3	0.06	1.16	13	0.25	0.44	50%	55%	1	0.16	0.88
177062001	4	0.08	1.56	15	0.29	0.51	15%	14%	0	0.06	0.29
177062004	4	0.07	1.44	13	0.25	0.44	34%	32%	1	0.11	0.59
177064001	5	0.08	1.71	16	0.30	0.53	9%	8%	0	0.04	0.19
177064002	6	0.10	2.13	20	0.38	0.66	33%	30%	1	0.16	0.84

177064003	4	0.08	1.58	15	0.29	0.50	31%	28%	1	0.11	0.59
177064004	6	0.10	2.09	20	0.38	0.66	28%	25%	1	0.13	0.70
177067001	4	0.06	1.32	13	0.24	0.42	39%	36%	1	0.12	0.62
177067002	4	0.07	1.41	13	0.24	0.43	31%	29%	1	0.10	0.52
177068002	5	0.09	1.93	18	0.34	0.59	15%	14%	0	0.07	0.36
177068003	6	0.11	2.21	21	0.39	0.69	3%	3%	0	0.02	0.08
177069001	5	0.08	1.74	17	0.32	0.56	40%	37%	1	0.16	0.86
177069002	5	0.09	1.83	17	0.32	0.56	46%	47%	1	0.19	1.12
177069003	6	0.10	2.12	20	0.39	0.67	42%	41%	1	0.21	1.16
Sub Totals									**68**	**11**	**57**

Table A10: Initial walking and cycling trips NWG

NI	**Daily trip productions Non-cross Border proportionate to zones areas within catchment (NI - NI)**			**Daily trip productions Cross Border trips proportionate to zones areas within catchment (NI - IRL)**			**Distance Factors**		**ALL TRIPS Catchment / zone**		
GUID	**ALL**	**Bicycle**	**Walk**	**ALL**	**Bicycle**	**Walk**	**Cycling**	**Walking**	**ALL**	**Bicycle**	**Walk**
95MM02	***33***	0.33	8.09	249.34	2.51	61.28	43%	40%	29	1.23	27.92
95MM04	***21***	0.21	5.12	186.60	1.88	45.86	41%	38%	20	0.86	19.37
95MM05	***22***	0.22	5.30	202.20	2.04	49.69	41%	38%	22	0.93	20.90
95MM06	***23***	0.23	5.63	205.20	2.07	50.43	68%	68%	39	1.56	37.87
95MM10	***22***	0.22	5.41	204.08	2.06	50.15	41%	38%	22	0.93	21.11
95MM11	***19***	0.19	4.71	178.46	1.80	43.86	41%	38%	19	0.82	18.46
95MM12	***46***	0.47	11.40	400.98	4.04	98.54	31%	29%	34	1.40	32.40
95MM13	***71***	0.72	17.49	586.12	5.91	144.04	28%	26%	44	1.86	42.32
95MM17	***35***	0.35	8.64	289.51	2.92	71.15	55%	53%	44	1.80	42.37
95MM22	***25***	0.25	6.16	205.87	2.08	50.59	54%	52%	31	1.25	29.29
95MM23	***24***	0.25	5.97	221.68	2.24	54.48	44%	41%	26	1.09	24.79
95MM24	***22***	0.22	5.33	193.75	1.95	47.61	54%	52%	29	1.18	27.66
95MM25	***49***	0.50	12.11	432.99	4.37	106.41	64%	63%	77	3.10	74.32
95MM26	***29***	0.29	7.07	237.82	2.40	58.45	74%	75%	51	2.00	48.98
95MM27	***39***	0.40	9.68	361.18	3.64	88.76	44%	41%	42	1.77	40.36
95MM28	***22***	0.22	5.38	206.84	2.09	50.83	41%	38%	22	0.95	21.36
95MM30	***19***	0.20	4.76	177.88	1.79	43.72	41%	38%	19	0.82	18.42
Sub Totals									**571**	**24**	**548**

Republic of Ireland	**Daily trip productions Non-cross Border proportionate to zones areas within catchment (IRL - IRL)**			**Daily trip productions Cross Border trips proportionate to zones areas within catchment (IRL - NI)**			**Distance Factors**		**ALL TRIPS Catchment / zone**		
GUID	**ALL**	**Bicycle**	**Walk**	**ALL**	**Bicycle**	**Walk**	**Cycling**	**Walking**	**CATCH**	**Bicycle**	**Walk**
SA2017_057015001	128	1	31	43	1	1	81%	82%	29	1.71	26.91
SA2017_057015002	128	1	32	44	1	1	62%	61%	22	1.33	20.22

SA2017_057015003	157	2	39	51	1	2	59%	57%	25	1.50	23.19
SA2017_057015004	47	0	12	15	0	0	44%	42%	5	0.34	5.06
SA2017_057015005	78	1	19	25	0	1	49%	47%	10	0.62	9.42
SA2017_057017001	59	1	14	19	0	1	35%	33%	5	0.33	5.00
SA2017_057017002	140	1	34	46	1	2	52%	50%	19	1.19	17.96
SA2017_057017003	136	1	33	45	1	1	52%	50%	19	1.16	17.49
SA2017_057017004	172	2	42	58	1	2	41%	38%	18	1.16	16.80
SA2017_057017005	106	1	26	36	1	1	41%	38%	11	0.72	10.36
SA2017_057017006	32	0	8	10	0	0	41%	38%	3	0.21	3.10
SA2017_057017007	142	1	35	47	1	2	41%	38%	15	0.95	13.86
SA2017_057017008	125	1	31	42	1	1	41%	38%	13	0.84	12.20
SA2017_057017009	172	2	42	60	1	2	54%	52%	25	1.56	23.16
SA2017_057017010	163	2	40	55	1	2	54%	52%	23	1.44	21.56
SA2017_057017011	155	2	38	51	1	2	41%	38%	16	1.05	15.28
SA2017_057017012	66	1	16	21	0	1	83%	84%	15	0.88	14.19
SA2017_057017013	78	1	19	26	0	1	69%	69%	15	0.89	13.86
SA2017_057017014	117	1	29	37	1	1	55%	53%	17	1.04	15.81
SA2017_057018001	128	1	32	41	1	1	56%	54%	19	1.16	17.72
SA2017_057018002	126	1	31	44	1	1	58%	56%	19	1.22	18.22
SA2017_057018003	137	1	34	50	1	2	75%	76%	28	1.76	26.68
SA2017_057018004	137	1	34	48	1	2	59%	57%	22	1.35	20.19
SA2017_057018005	168	2	41	60	1	2	63%	62%	29	1.80	27.06
SA2017_057018006	137	1	34	48	1	2	55%	53%	20	1.26	18.68
SA2017_057018007	154	2	38	51	1	2	57%	56%	23	1.44	22.01
SA2017_057018008	103	1	25	34	1	1	22%	21%	6	0.37	5.41
SA2017_057018009	100	1	25	38	1	1	71%	71%	20	1.22	18.28
SA2017_057018010	103	1	25	34	1	1	80%	81%	23	1.36	21.48
SA2017_057018011	110	1	27	37	1	1	70%	70%	21	1.26	19.73
SA2017_057018012	104	1	25	36	1	1	82%	83%	24	1.42	22.22
SA2017_057018013	185	2	45	62	1	2	83%	84%	42	2.53	39.89
SA2017_057018014	103	1	25	35	1	1	70%	70%	20	1.20	18.49
SA2017_057018015	109	1	27	37	1	1	70%	70%	21	1.26	19.49
SA2017_057018016	126	1	31	46	1	2	69%	68%	24	1.47	22.13
SA2017_057021001	106	1	26	35	1	1	50%	47%	14	0.86	12.88
SA2017_057021002	53	1	13	17	0	1	63%	62%	9	0.54	8.34
SA2017_057021003	111	1	27	37	1	1	46%	43%	13	0.83	12.29
SA2017_057021004	108	1	26	35	1	1	47%	45%	13	0.83	12.38
SA2017_057021005	158	2	39	50	1	2	75%	76%	33	1.91	30.66
SA2017_057021006	135	1	33	47	1	2	55%	53%	20	1.23	18.35
SA2017_057029001	108	1	26	35	1	1	55%	53%	16	0.97	14.69

SA2017_057029002	104	1	26	35	1	1	64%	63%	18	1.10	16.87
SA2017_057029003	200	2	49	67	1	2	34%	31%	17	1.11	16.03
SA2017_057029004	54	1	13	17	0	1	43%	40%	6	0.37	5.54
SA2017_057029005	88	1	22	28	1	1	51%	49%	12	0.73	11.01
SA2017_057063001	71	1	18	23	0	1	77%	78%	15	0.90	14.21
SA2017_057063001	110	1	27	36	1	1	25%	23%	7	0.44	6.43
SA2017_057063002	149	1	37	49	1	2	14%	13%	5	0.35	5.08
SA2017_057063003	131	1	32	44	1	1	79%	80%	29	1.71	26.83
SA2017_057063004	188	2	46	61	1	2	72%	72%	37	2.19	34.55
SA2017_057063005	166	2	41	53	1	2	77%	77%	35	2.05	32.71
SA2017_057063006	159	2	39	51	1	2	56%	55%	24	1.45	22.34
SA2017_057063007	77	1	19	25	0	1	50%	48%	10	0.63	9.49
SA2017_057088001	59	1	14	19	0	1	70%	70%	11	0.67	10.55
SA2017_057088002	169	2	42	55	1	2	41%	38%	18	1.13	16.52
SA2017_057089001	89	1	22	29	1	1	12%	11%	3	0.18	2.62
SA2017_057089002	163	2	40	54	1	2	45%	43%	19	1.21	17.82
SA2017_057093002	23	0	6	7	0	0	8%	8%	0	0.03	0.44
SA2017_057093003	140	1	34	48	1	2	2%	2%	1	0.05	0.68
SA2017_057095004	220	2	54	71	1	2	8%	8%	5	0.29	4.28
SA2017_057095006	167	2	41	54	1	2	35%	32%	15	0.95	13.83
SA2017_057118003	48	0	12	15	0	1	54%	53%	7	0.42	6.48
SA2017_057118004	167	2	41	56	1	2	33%	30%	14	0.90	13.02
SA2017_057122001	187	2	46	60	1	2	64%	63%	32	1.92	30.11
SA2017_057122002	112	1	28	37	1	1	2%	2%	1	0.04	0.55
SA2017_057122003	182	2	45	58	1	2	43%	40%	20	1.26	18.90
SA2017_057125001	116	1	29	37	1	1	70%	69%	22	1.31	20.70
SA2017_057125002	60	1	15	19	0	1	2%	2%	0	0.02	0.29
SA2017_057125003	191	2	47	65	1	2	2%	2%	1	0.06	0.93
SA2017_057125004	116	1	29	37	1	1	12%	11%	4	0.23	3.39
SA2017_057145001	150	2	37	48	1	2	12%	11%	5	0.30	4.39
SA2017_068145002	169	2	41	54	1	2	69%	69%	32	1.88	29.75
Sub Totals									**1,203**	**74**	**1,129**