TRAFNIDIAETH CYMRU
TRANSPORT FOR WALES

Addressing Rural Transport

14th November 2022

Mae Trafnidiaeth Cymru yn eiddo i
Lywodraeth Cymru
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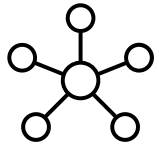
Rural Agenda: Llwbyr Newydd

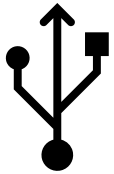
1



Transport

- Connectivity
- Integration
- Frequency
- Active travel
- Road safety

2



Transport related

- Local journeys
- E bikes
- Car share
- Car clubs
- Bus and taxi services
- New transport technologies

3

Digital

- Superfast work hubs
- Home working

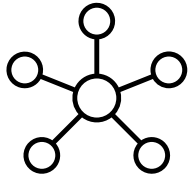
Rural Agenda: Three Phases

1

Defining the scope – What is rural?

- Defining urban/rural areas of Wales relevant to the scope of the study.
- Identifying individual settlements within the rural areas.

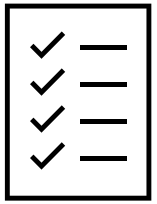
2



How well connected is rural Wales?

- Compiling/analysing the existing public transport provision data for each of the rural settlements.

3



Principles to be agreed and options to explore.

- Local authority pilot area case studies leading to development of an all-Wales methodology.
- Range of factors and options to explore.
- All-Wales prioritisation method for options.

Delivery Plan

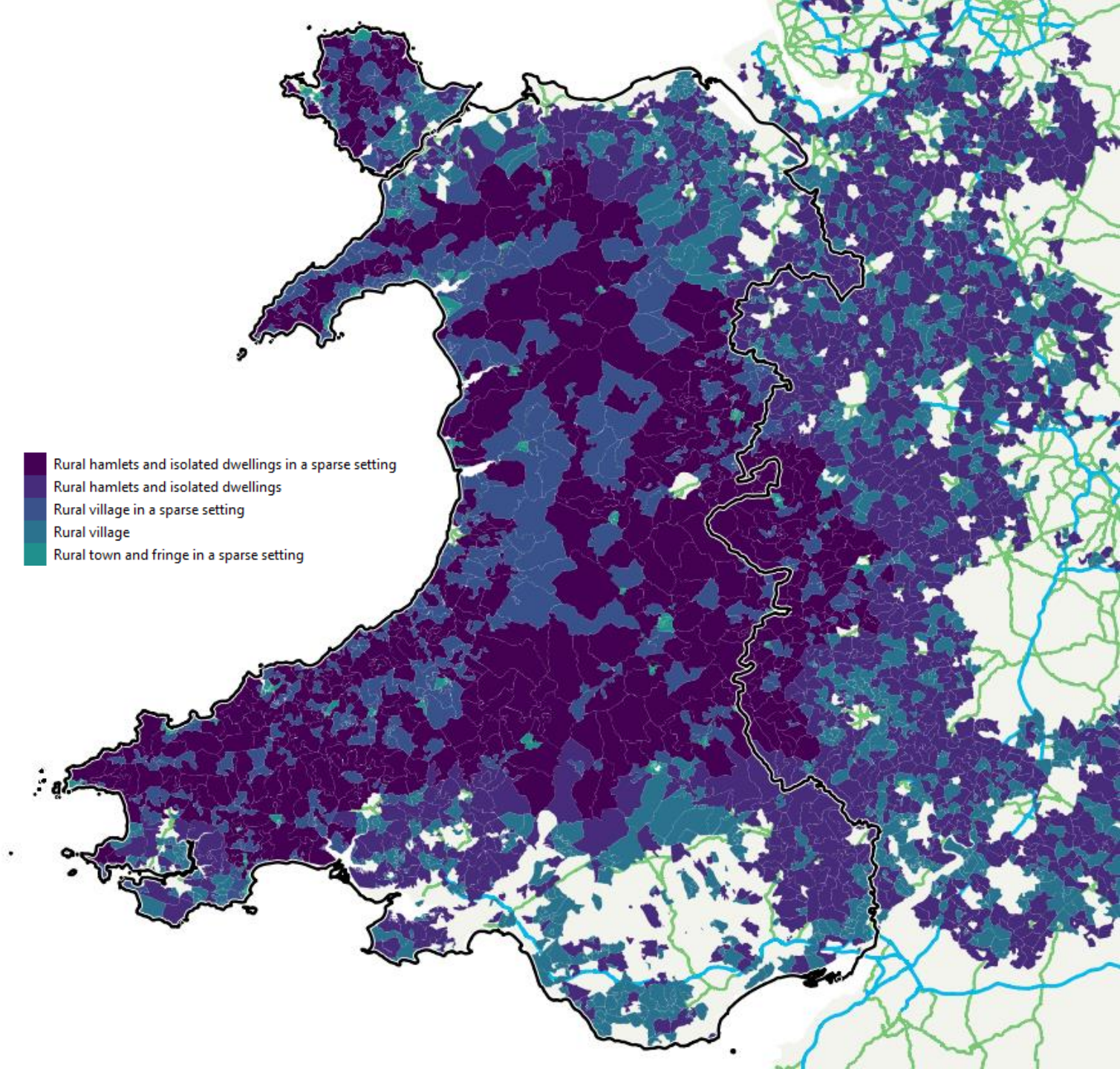
1

Defining the scope – What is rural?

Fflecsi in Pembrokeshire - https://news.tfw.wales/resources/kqdx5-4cs8v-3mf0j-9jnxc-gi3sl

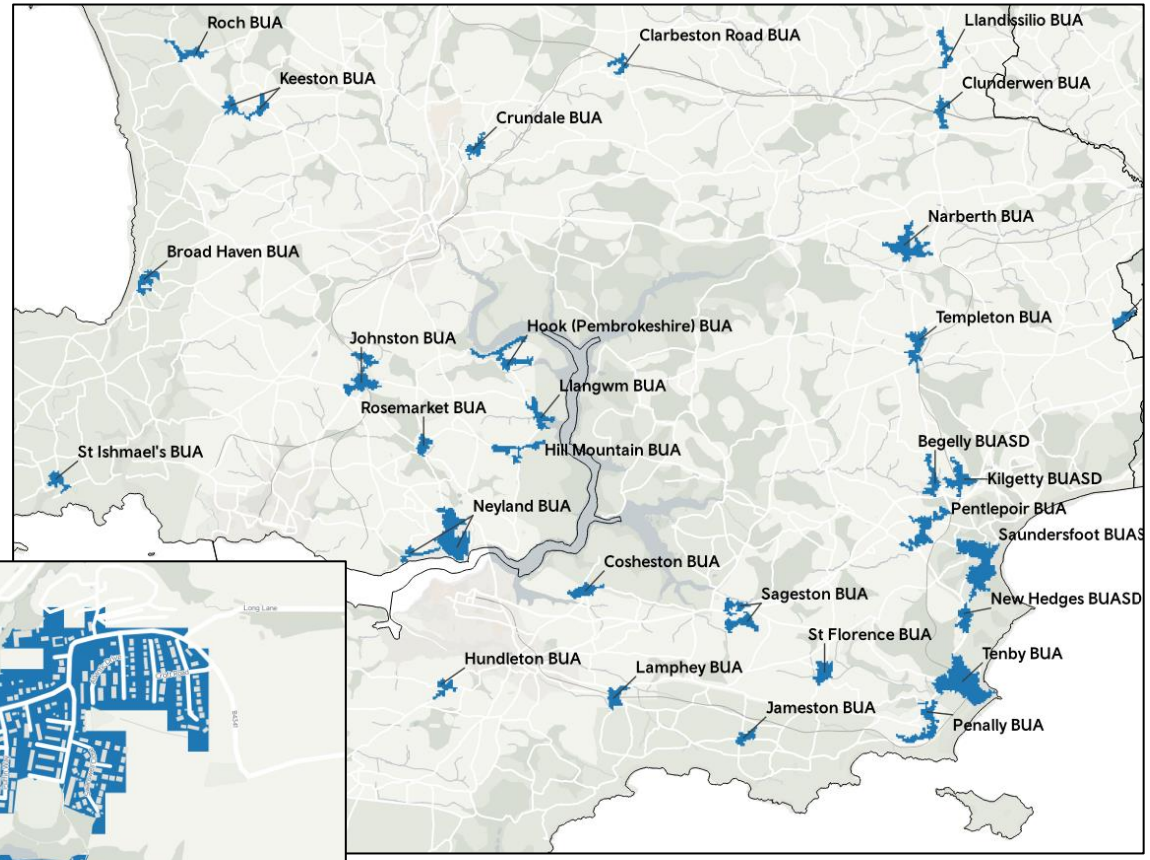
Identifying what is rural

- Rural Urban Classification 2011 (ONS)
- Accepted industry standard method of distinguishing rural and urban areas across England and Wales.
- Following a review of the RUC11 classification categories, it was decided to exclude the ‘D1: Rural towns and fringe’ category. This helps to refine areas in-scope more appropriately.
- The 5 most rural RUC11 categories are now included as being within scope.
- Output areas within Wales that are also within these categories have been used for the analysis.

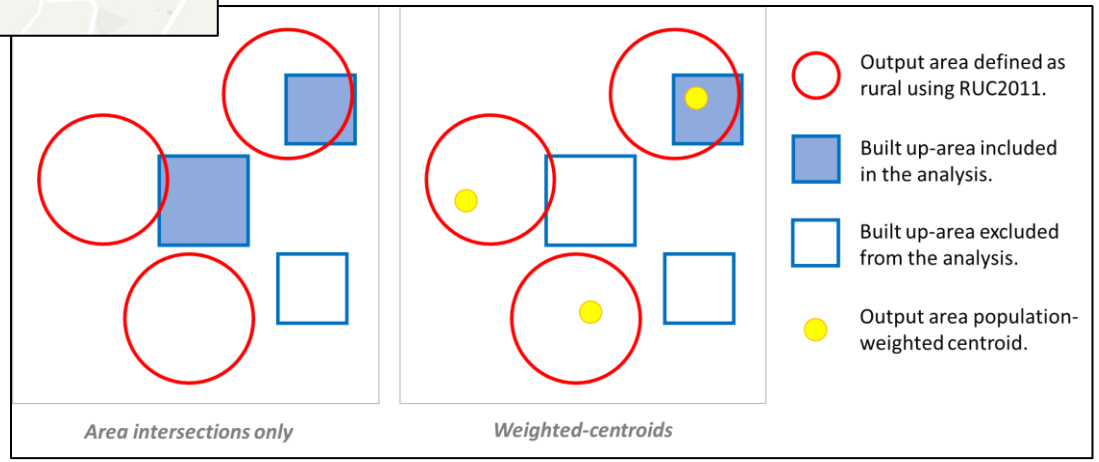


Identifying individual settlements in rural

- Built-up areas are defined by Office of National Statistics (ONS) as land which is ‘irreversibly urban in character’, meaning that they are characteristic of a village, town or city. They include areas of built-up land with a minimum of 20 hectares (200,000m2). Only areas with less than 200 metres between them are linked to become a single built-up area.
- Using ONS built-up areas allows us to analyse the individual settlements rather than large zones which contain multiple settlements, and also gives us access to ONS population estimates.
- Where RUC11 categories spatially joined with built-up areas we used population weighted centres to improve the accuracy of which built-up areas should be included in the analysis.



< Broad Haven BUA



2

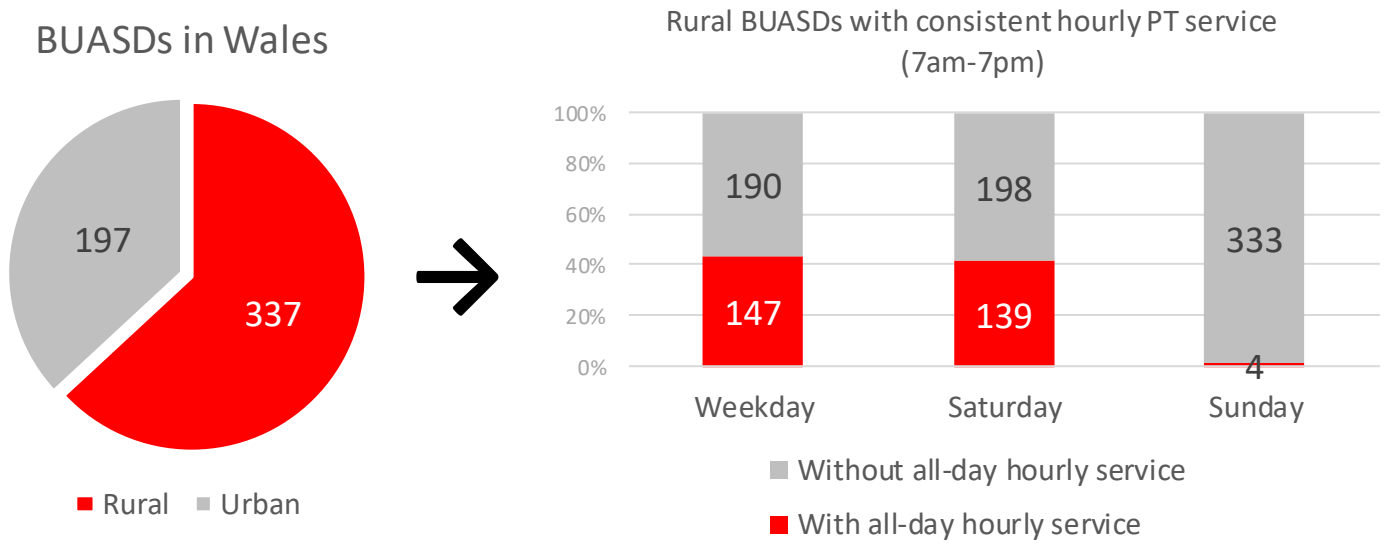
How well connected is rural Wales?

North Llanrwst station (Credit: Robert Mann) - https://news.tfw.wales/resources/yb0u4-xti2t-zkr9g-nigma-t3i31

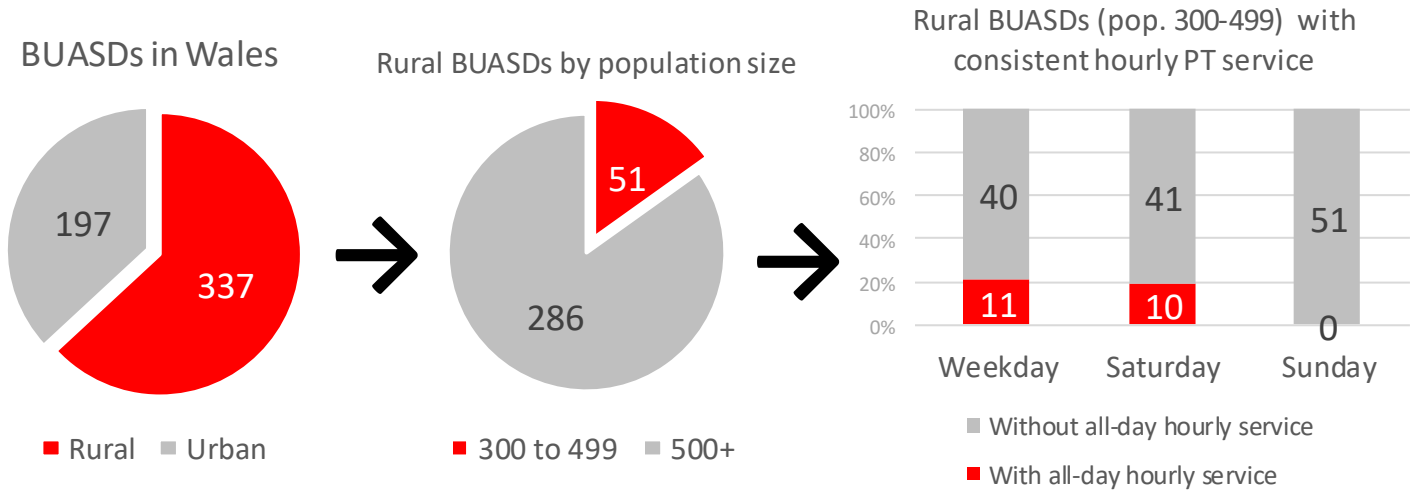
Consistent hourly PT service (≥ 1 per hour)

- Using TRACC software, all PT stops and stations with a consistent frequency of at least 1 per hour between 7am-7pm on a weekday, Saturday and Sunday were identified and plotted.
- This was then overlaid with the Built-up areas incl. sub-divisions (BUASDs) to identify which built-up areas contained PT stops/stations with services of at least 1 per hour in frequency.
- The summary statistics are categorised in groups based on the population estimates for rural built-up areas. Examples are given here for all rural BUASDs in Wales and an excerpt of rural BUASDs with a population between 300 and 499.

All rural built-up areas (incl. sub-divisions) in Wales:



Rural built-up areas (incl. sub-divisions) in Wales with population between 300 and 499:

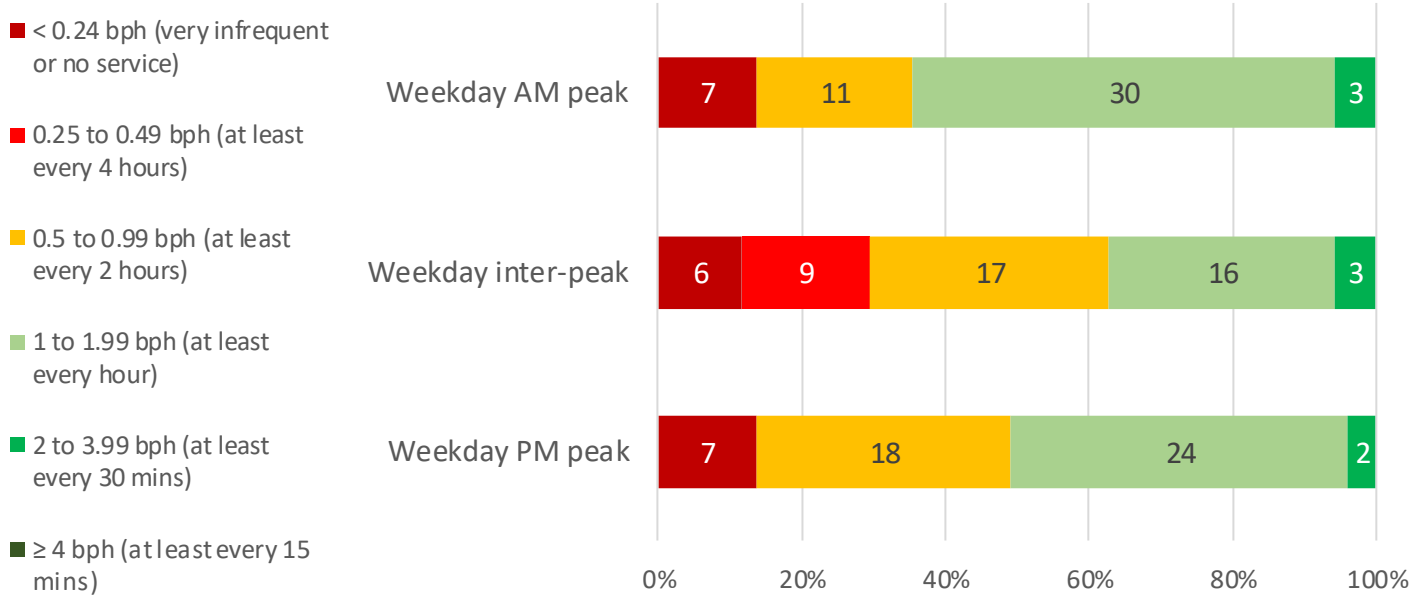


Bus frequency (incl. < 1 per hour)

- Using Basemap bus route line data, the bus route lines were clipped to only include those which pass through a built-up area during a range of time periods on weekdays, Saturdays and Sundays.
- The analysis is conducted in two ways. For max frequency, the service with the highest frequency is assigned to each built-up area, whereas for total frequency, the combined total of all services is assigned to each built-up area.
- The summary statistics are categorised in groups based on the population estimates for rural built-up areas. Examples are given here for max bus frequency in rural BUASDs in Wales with a population between 300 and 499, and also an example of the difference between max and total frequency figures.

AM peak: 07:00 – 08:59
IP (inter-peak): 09:00 – 15:59
PM peak: 16:00 – 17:59

Weekday max bus frequency in rural BUASDs in Wales with population between 300 and 499 *(51 in total)*

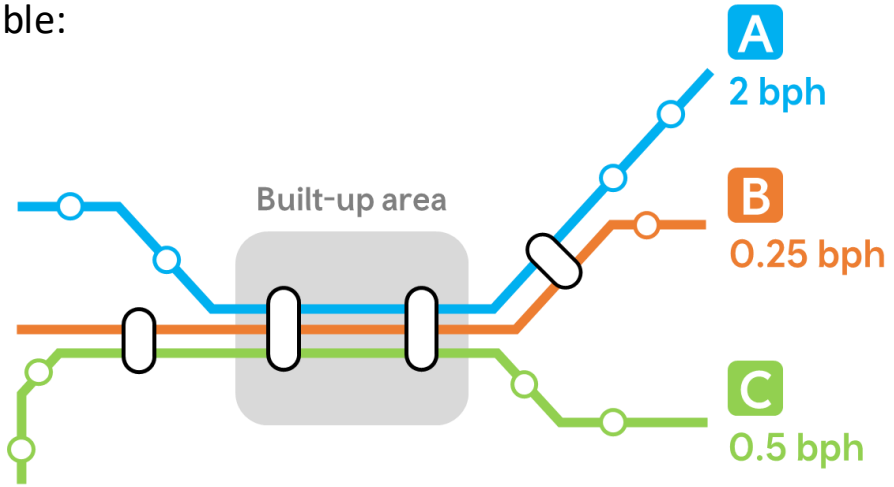


Max hourly frequency available:

2 bph

Total hourly frequency:

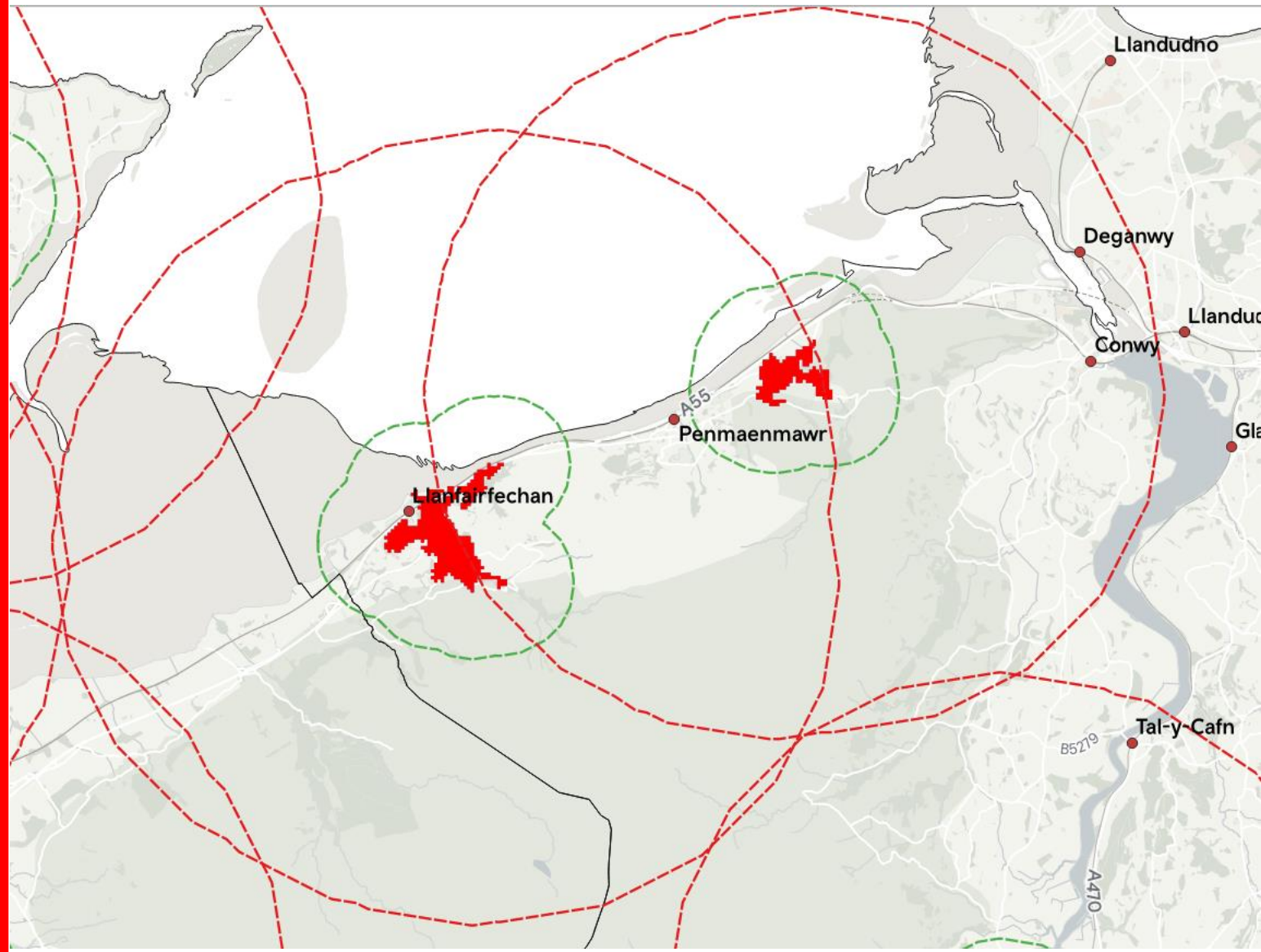
2.75 bph



Daily rail frequency

- Using TfW's 'Train Service Requirements' (TSR) data, we can identify the 'current' level of service at each station, presented as a daily no. of trains.
- The dataset gives annual estimates up to 2024, based on the franchise commitments and expected service frequency changes.*
- The data is split into regions/routes, arrivals/departures and also into weekday, Saturday and Sunday periods.
- In GIS, we can identify which built-up areas contain a rail station served by TfW Rail services, and which have a station within a specified distance (currently set at 1km and 5km).
- These identified stations can then be cross-referenced back to the TSR data.

** Estimates of future frequency subject to change.*



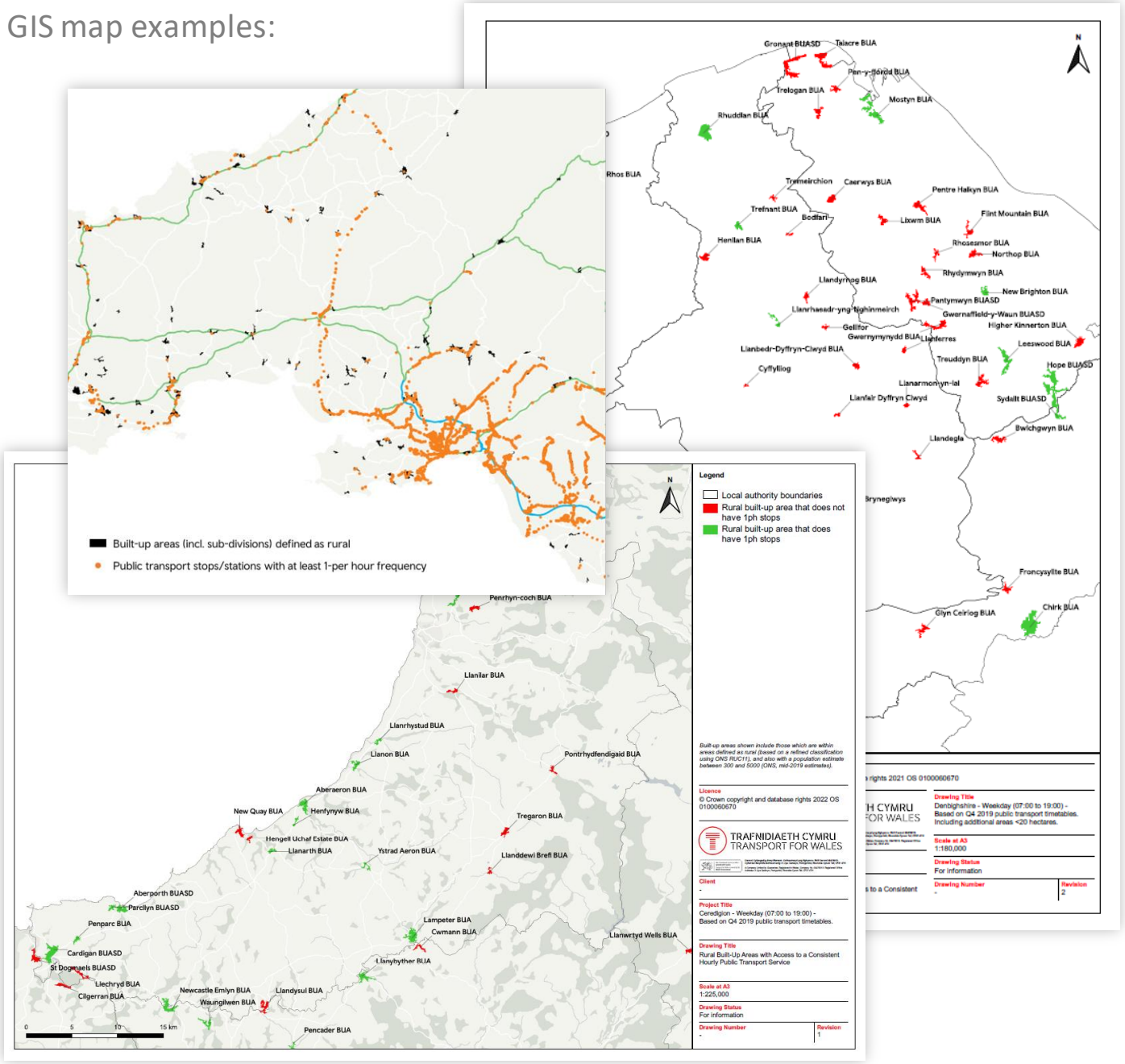
Outputs

1. Summary table – Gives more detail on specific built-up areas for the datasets discussed. Also allows to identify individual scheduled bus services which serve each area.

2. Rural Urban Classification Note – Provides more detail about the decision made to begin with RUC11 and then refine it's categorisation for this specific work.

3. GIS maps – Allows for viewing of the statistical data spatially, so that geographic trends can be identified. Also allows for scales to be customised and other datasets to be overlaid and compared.

GIS map examples:



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Principles to be agreed and options to explore

Llandrindod Wells station - https://news.tfw.wales/resources/4s6td-qtfsb-m5hgq-aeylt-we9z9

Example case studies:
Bus frequency cost estimates

- Two pilot areas chosen to explore options to boost services to required standard: Ceredigion and Denbighshire.

- For each, a high level service design was developed for hourly services and associated estimated costs.

Ceredigion excerpt:

Place	Pop.	Current Bus Service	Action Required
Aberporth	1241	T5 – 12 trips M – F; 7 trips Sat. 552 – 1 trip Th; 2 trips F&S 554 – 5 trips M – F; 3 trips Sat.	Increase T5 to hourly M-S and introduce Sunday service.
Borth	1399	512 – 11 trips (hourly 08:00 – 18:00)	Add 1 extra trip am and pm M-S and introduce Sunday service.
Felinfach	346	T1 – 10 trips M – S (until 19:00)	Increase T1 to hourly M-S and increase Sunday service.
Hengell Uchaf		5 minutes walk from T5 in New Quay 11 trips to Aberystwyth 06:30 – 18:30 M – S 9 trips to Haverfordwest 09:00 – 20:30 M-S	Increase T5 to hourly M-S and introduce Sunday service.

Cost estimates:

Ceredigion:
Monday – Saturday: £1.09M
Sunday: £0.6M

Denbighshire:
Monday – Saturday: £0.31M
Sunday: £58K

- Not confirmed with bus companies – or considered impact of COVID on "baseline" service viability
- Costs based on £130K p.a. for an all-day/week bus (excluding Sunday); £40 an hour for a part day/week bus; £25K p.a. for a Sunday all day bus

Potential issues:

- Affordability – COVID impact on patronage will increase “as is” subsidised service costs, before additional costs shown here.
- Journey times – Buses will be routed circuitously to cover all villages, which will increase journey times for many.
- Demand – Should grow with a better service, but is not proven for an hourly service and buses may often be empty, especially initially.
- Coverage – people in smaller settlements (e.g. population <300) and more isolated settlements may not benefit from the additional services.

Factors to consider going forward:

1 Policy

Do local or national policies align with the existing transport provision, and to what extent can they be used to plan/prioritise schemes to improve the provision?

2 Demand

Using datasets such as the regional transport models or mobile phone data to identify key movement patterns, opportunities be found for more targeted interventions?

3 Economic/Finance & Social

What budget is available for transport interventions in rural areas? How can the various economic and social impacts of accessibility to public transport be valued?

4 Modal Shift

What opportunities exist to encourage modal shift in line with national or local policies, and are there risks of unintended impacts of other modes of transport (e.g. induced demand)?

5 WIMD/Levels of Deprivation

By combining WIMD data with the frequency-based analysis, are there any identifiable trends regarding how areas currently have access to public transport based on their level of deprivation?

6 Active Travel

To what extent can safe active travel routes be provided to nearby centres and towns to encourage modal shift in rural communities?

7 Option Prioritisation

How can potential interventions be scored or prioritised to ensure the greatest benefits are found? Do rural-specific considerations need to be made compared to existing methods?

8 Innovation

To what extent can alternative modes, interventions and schemes be considered to encourage innovative solutions to transport issues (e.g. car clubs, digital connectivity, car-share)?

Note: List not finalised. Factors may be subject to change.

TRAFNIDIAETH CYMRU
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Diolch/Thank you

30th March 2022

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