

## **Local Living Background and Technical Note**

1.1 This note sets out the background to the approach taken to Local Living in West Lothian.

This note sets out the scoring system used to evaluate local living and data from the Scottish Living Locally Data Portal used to inform the evidence base for the future Local Development Plan 2.

## **Policy Context**

### **National Spatial and Regional Spatial Strategies**

1.2 The National Spatial Strategy sets out six principles to guide the national spatial strategy, one of which is local living. The full principle is as below:

1.3 *“We will support local liveability and improve community health and wellbeing by ensuring people can easily access services, greenspace, learning, work and leisure locally”.*

### **Regional Spatial Priorities**

1.4 Local living is noted within the Regional Spatial Priorities for the Central Belt. NPF 4 states that:

*“The diversity of this area, from metropolitan districts to rural and dispersed settlements, will require concerted effort to develop networks of places that meet the principles of local living and 20 minute neighbourhoods, and with fair access to a range of services that support sustainable living.*

1.5 Annex C – Spatial Planning Priorities sets out for the Central Belt that *“Local living, including 20 minute neighbourhoods, will help to minimise future commuting and ensure jobs and income can be spread more evenly across the area”.*

### **NPF 4 Policy 15**

1.6 NPF 4 Policy 15 sets out requirements for Local Development Plans:

*“LDPs should support local living, including 20 minute neighbourhoods within settlements, through the spatial strategy, associated site briefs and masterplans. The approach should take into account the local context, consider the varying settlement patterns and reflect the particular characteristics*

*and challenges faced by each place. Communities and businesses will have an important role to play in informing this, helping to strengthen local living through their engagement with the planning system”.*

#### NPF 4 Annex F

1.7 Annex F of NPF 4 sets out a definition of 20 minute neighbourhoods:

*“A flexible approach to assessing our places against the concept of local living. A method of achieving connected and often compact neighbourhoods designed in such a way that people can meet the majority of their daily needs within a reasonable distance of their home preferably by sustainable and active travel methods. The principle can be adjusted to include varying geographical scales from cities and urban environments, to rural and island communities. Housing would be planned together with local infrastructure including schools, community centres, local shops and health and social care to significantly reduce the need to use unsustainable methods of travel, to prioritise quality of life, help tackle inequalities, increase levels of health and wellbeing and respond to the climate emergency.”*

#### **Local Living Mapping**

1.8 Local living mapping for West Lothian has been created to understand the availability of selected services within a 10-minute walking distance. This is based on the Scottish Government’s [guidance on local living and 20 minute neighbourhoods](#), the concept being that people should be provided with the opportunity to meet the majority of their daily needs within a reasonable distance of their home. This is intended to be a walk of roughly 10 minutes to any destination and a 10-minute return journey. The methodology for this analysis largely follows that described in the Improvement Service guidance [‘How to map a 20-minute neighbourhood: Data and methods’](#). This package includes ArcPy Scripts which were used during the process. Also referenced was Highland Council’s [Local Living Mapping Technical Note](#).

1.9 The facilities and associated weighting used to evaluate local living in West Lothian is outlined in **Table 1** below. This is based on weightings suggested by the Improvement Service, but has been modified based on officer judgement.

**Table 1.** Local Living facilities layers.

Theme	Facility Type	Grouping	Weighting	Data Source
Education	Primary School		1	WLC Internal
Education	Secondary School		0.6	WLC Internal
Education	Pre-School		0.8	WLC Internal

Shopping	Convenience Store		1	WLC 2025 Retail Survey
Shopping	Supermarket		0.4	WLC 2025 Retail Survey
Shopping	Butcher, Baker, etc.		0.4	WLC 2025 Retail Survey
Health	GP		0.8	WLC Internal
Health	Pharmacy		1	WLC 2025 Retail Survey
Health	Dentist		0.4	WLC 2025 Retail Survey
Utility	Post Office		0.8	WLC 2025 Retail Survey
Utility	Glass Recycling Point		0.4	WLC Internal
Financial Services	Banking		0.6	WLC 2025 Retail Survey
Sport	Sports Hall	Assess together as sports facilities, each scored at 0.6 up to a maximum of 1	1	Adapted from <a href="#">IS Sports Facilities - Scotland</a>
Sport	Squash Court			
Sport	Swimming Pool			
Sport	Pitch			
Sport	Outdoor Tennis Court			
Sport	Indoor Tennis Court			
Sport	Golf Course			
Sport	Fitness Suite			
Sport	Bowling Green			
Sport	Athletics Track			
Community	Community Facility	Assess together as community facilities, each scored at 0.6 up to a maximum of 1	1	WLC Internal
Community	Library			<a href="#">OS OpenMap Local Buildings</a>
Community	Religious Meeting Place			
Community	Community Food Growing		0.2	WLC Internal
Culture	Museum	Assess together as cultural facilities, each scored at 0.2 up to a maximum of 0.6	0.6	WLC Internal
Culture	Cinema or Theatre			
Food and Drink	Restaurant or Pub		1	WLC 2025 Retail Survey

Food and Drink	Café or Takeaway	Assess together as food and drink, each scored at 0.4 up to a maximum of 1		
Travel	Railway Station	Assess together as public transport access points, each scored at 0.6 up to a maximum of 1	1	WLC Internal
Travel	Bus Stop			Workforce Mobility Project
		<b>Total Possible Score:</b>	13	

1.10 The inclusion of parks and greenspace layers was considered; however, these features are often larger and stored as polygons, while the chosen analysis method is designed for point layers only. Several approaches for converting the polygons to points were explored, but none produced satisfactory results. Furthermore, assessment of the quality, quantity and accessibility of these spaces will be covered in greater detail by the Open Space Strategy for the purposes of helping to develop the Proposed Plan.

#### Facilities Layers Preparation

1.11 Facilities layers were sourced as outlined in **Table 1** and gathered into an ArcGIS Pro project. Next, a field called “Name” was added to each of the points and assigned the layer name for each layer. For example, the GP layer contains a field called “Name” that contains the value “GP”. This was carried out using an ArcPy Script provided in the Improvement Service guidance (**Script 1: Adding a name field to facilities**). All facility layers were then merged together into one dataset. This was also completed using the provided script (**Script 2: Merge together facility datasets**). The West Lothian facilities layer contained approximately 2500 points in total.

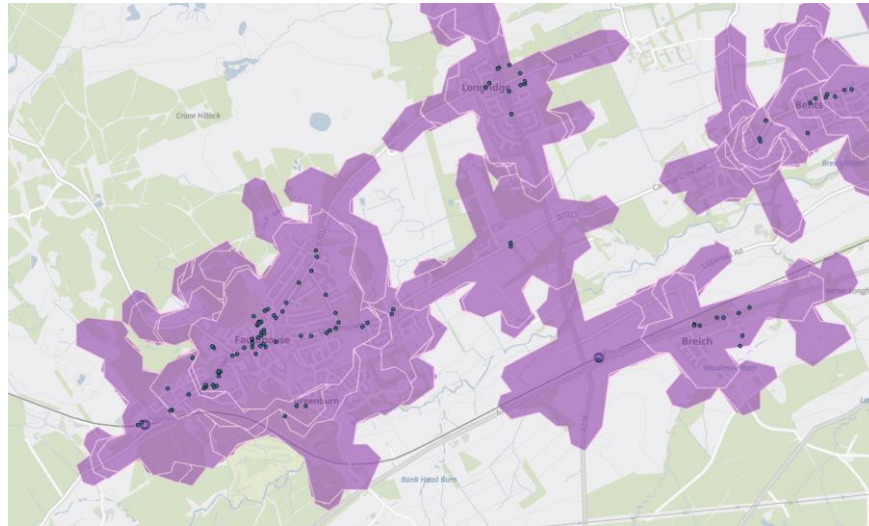
1.12 The Data Management Tool ‘**Generate Tessellation**’ in ArcGIS Pro was used to create a grid of 2000m<sup>2</sup> hexagonal cells covering the extent of West Lothian. The aim of the Local Living analysis is to assign each of these hexagons a Local Living score.

#### Network Analysis

1.13 Using the merged facilities layer, it was then possible to calculate a ‘service area’ for each facility. This is the distance a person can travel using the facility as a starting point.

1.14 The ArcGIS Pro **Network Analyst** tool was used to calculate these service areas. In order to use this tool, a roads and streets network must first be created and imported. The data used to create the network is from the Ordnance Survey’s (OS) [National Geographic Database](#) (NGD) and includes all

elements from the Transport NGD (RAMI, Transport Features and Transport Network). After importing the transport network, the tool can be run with settings as pictured. This outputs a polygon layer of 10-minute walkable service areas from each point.



**Figure 1: Walkable Service Areas**

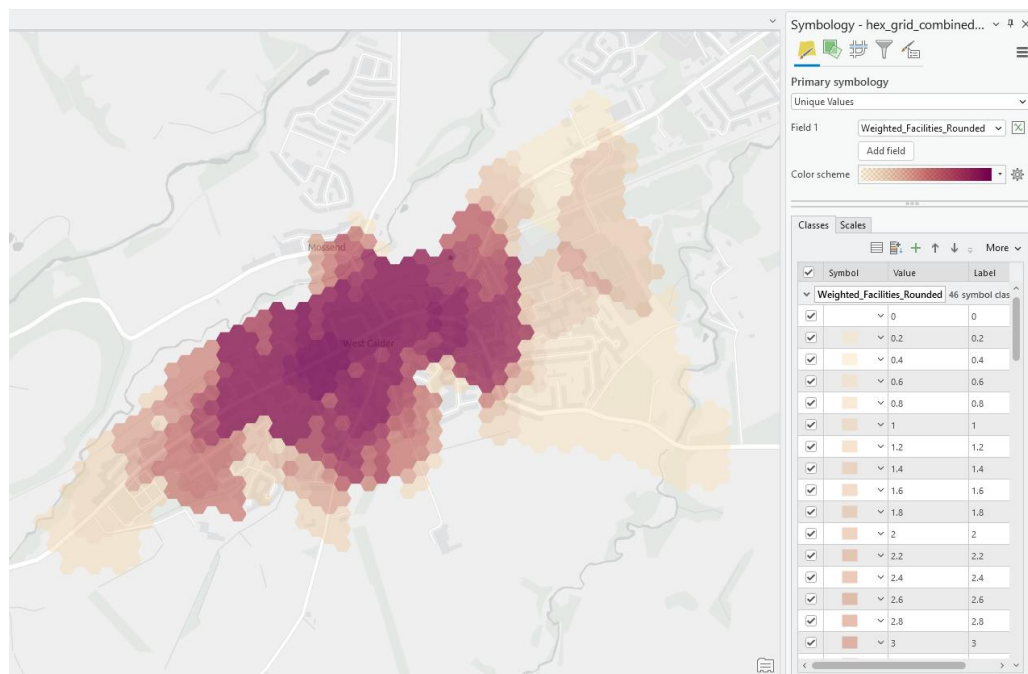
- 1.15 The Improvement Service ArcPy **Script 4: Join facilities to hex with join count** was used to count the number of facilities of each type that are accessible within each hexagon. More in depth information on how this script works is available in the guidance. This outputs a hex grid layer with fields for each facility type containing count values. This is the final layer required.
- 1.16 At this point, a count of different facility types accessible from each hexagon has been achieved. From here it is useful to weight the data. This solves 2 issues:
  1. Some facilities may appear multiple times within a small area. This raises the count but may not actually contribute to improved local living accessibility beyond a certain point. For example, a town might have lots of cafes and takeaways along a busy high street. This over-representation gives a high score in nearby cells, however could be masking a lack of other services (e.g. GP surgery, Community centre, etc.) by inflating the overall count.

- Without weighting, the score does not consider the relative importance of each facility type. This includes considerations such as which facilities are used on a daily basis, and which facilities are essential versus preferable.

1.17 The scoring system used to evaluate local living in West Lothian is outlined in **Table 1**. As noted above, this scoring system is based on weightings suggested by the Improvement Service, but has been modified based on officer judgement.

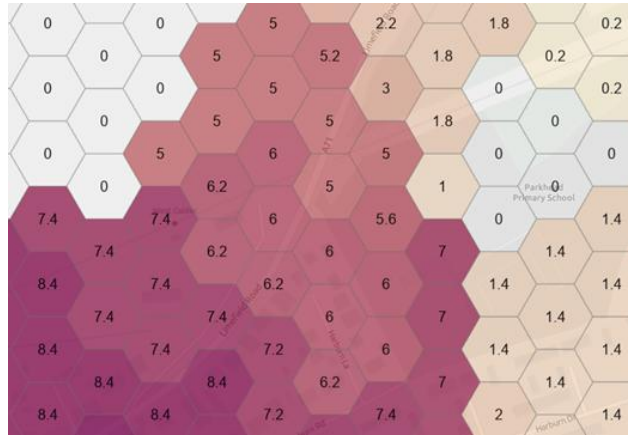
1.18 New weighted fields are created for each facility type using the facility count fields as the input layers. Once completed, a final weighted facilities field is calculated by adding together all individual weighted facility fields. This gives a final score for each hexagonal grid in the dataset. The result also needed to be rounded, since the use of float fields earlier causes tiny imprecisions in decimal numbers.

1.19 The output from this exercise is a hex grid layer with unique values based on the final weighted facilities field. An example showing West Calder is below:



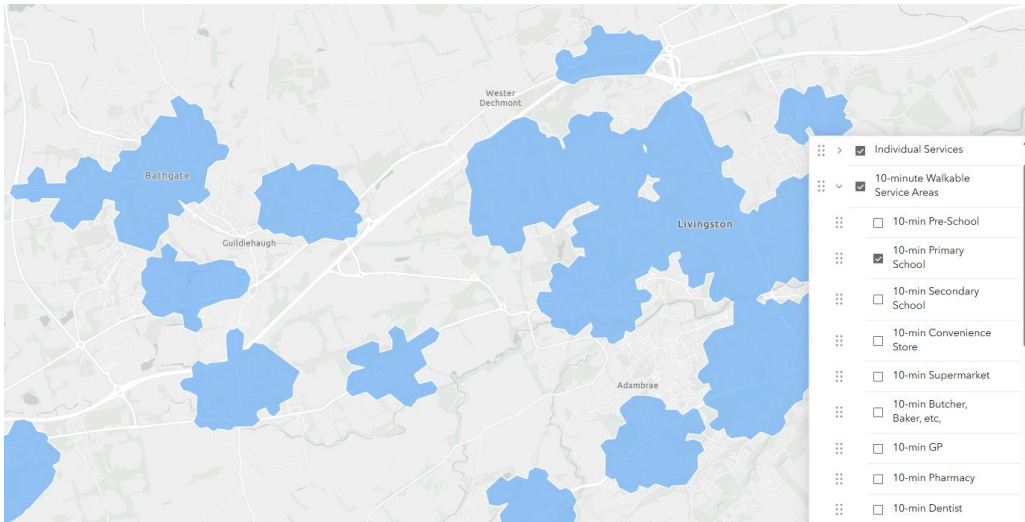
**Figure 2: West Calder Hex Grid**

1.20 Labelling based on the final weighted facilities field is enabled. A minimum scale is set so that it is visible in the same range as the original hex grid. This allows viewers to see the total local living score for each hexagon.

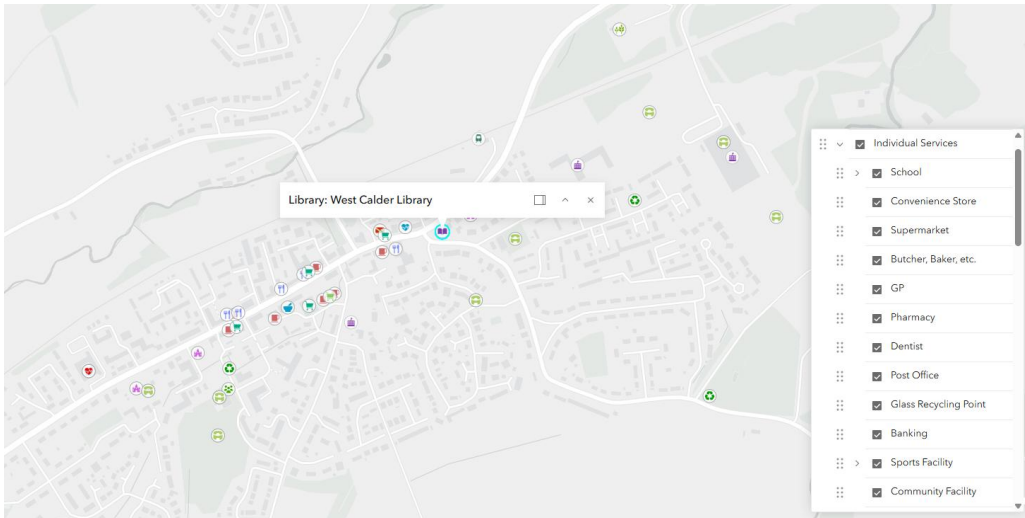


**Figure 3: Hex Grid Scores**

1.21 The service areas for each facility were also included in the final mapping, set up in an ArcGIS Instant App. The polygons belonging to each facility type were selected and dissolved into new layers. This makes it possible to view walkability coverage of each facility type. The individual facility points are also viewable.



**Figure 4: Primary school service areas.**



**Figure 5: Individual service points – West Calder**

## Next Steps

- 1.22 Following the mapping being set up, the next step is to analyse local living in each town and village and identify gaps in Local Living. It is proposed to use the Scottish Government's [Urban Rural Classification 2022](#) to categorise towns and villages. Given West Lothian's urban and rural geography the use of this classification data to categorise towns and villages is viewed as appropriate. Three categories are proposed to be chosen based on the type of towns and villages within West Lothian, their populations and distances to other settlements:
- Other Urban Areas – settlements of 10,000 to 124,999 people;
  - Accessible Small Towns – settlements of 3,000 to 9,999 people, and within a 30 minute drive time of a Settlement of 10,000 or more; and
  - Accessible Rural – areas with a population of less than 3,000 people, and within a 30 minute drive time of a Settlement of 10,000 or more.
- 1.23 Once a draft spatial strategy is confirmed, the intention is to layer chosen sites on to the mapping to assess the hex grid scoring for sites. It will need to be examined whether this scoring can be improved by making access road or footpath connections or provision of facilities within sites.
- 1.24 If a town or village does not contain certain facilities, for example, a secondary school, then this should not prevent new development in an area, and there will need to be a recognition of existing infrastructure capacity for certain facilities. A high score for Local Living through the hexagon grid will not, on its own, lead to a site being selected for allocation in the Proposed Plan. A number of factors will influence site selection. Proposed facilities in sites submitted to the Call for Ideas will be accounted for when assessing Local Living.
- 1.25 A timetable for next steps is set out below:

<b>Task</b>	<b>Timescale</b>
Set up of Local Living analysis and running analysis of draft spatial strategy for towns and villages	April-May 2026
Summarise analysis, identify gaps in Local Living for towns and villages	April-May 2026
Examine opportunities to plug gaps in Local Living through potential sites	May 2026
Spatial mapping and graphical illustration of site actions to plug gaps in Local Living in development briefs	May-September 2026

Delivery programme identifying site actions to plug gaps in Local Living	May-September 2026
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## **Conclusion**

- 1.26 This note has set out the policy context and background data used to inform the mapping of Local Living in West Lothian, as well as next steps required towards implementing Local Living in the Proposed Plan through the spatial strategy.