

Somerset Library Service Consultation 2018

Data analysis – methodology and data sources

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1. Introduction

A wide range of data and information from a variety of sources has been collated and considered to support assessments of need, access, usage and value for money and to identify demographic characteristics, including an analysis of equalities, for different areas in Somerset. These assessments have underpinned the development of the consultation proposals. This evidence-based approach ensures that the council addresses legal requirements to carry out:

- A robust assessment of need;
- An assessment of access considerations;
- A comprehensive equality impact assessment; and
- An assessment of value.

Decisions on the selection of relevant datasets and the approach to analysing and applying data have had a significant bearing on the development of proposals. For this reason, we have set out the methodology employed in the various assessments as well as the datasets used in some detail here. In summary:

- An assessment of need for library services in different areas of the County has been carried out by mapping various statistical measures of need across the County, using standard statistical geographies as well as existing library catchments to analyse differences in relative need. The need measures have been selected to address statutory considerations as well as the outcomes framework set for the Libraries Service, and also the different levels of population in different parts of the County. The need for different types of library services in different areas has also been considered using relative levels of current usage – based on the underlying logic that Libraries that are well used are likely to address needs more effectively.
- Access considerations have been analysed by considering levels of car ownership in different geographical areas, as well as public and community transport links and driving distances and times.
- Equalities data from library user records as well as national census datasets have been used, where possible, to build an understanding of the relative numbers of library customers / Somerset residents with different protected characteristics in different libraries / library catchments. Statistical tests have been used to identify catchments and libraries where groups of people with certain protected characteristics are statistically significantly over-represented; using a two-tailed P-Value test with a confidence interval of 95%. Some of the needs assessment data has also been used for analysing equalities impacts.
- The relative economic and social value of current libraries has been analysed through a range of usage measures, as well as the development of unit costs for current libraries.

The technical information set out here will be made available for comment and feedback during the consultation exercise, alongside the data collated.

2. Library Catchment mapping methodology

The basis of much of the data analysis is a library catchment mapping tool that Somerset County Council has developed to study the detailed demographics and needs in units that correspond to existing Output Areas (OA) or Lower-layer Super Output Areas (LSOA). An OA is the lowest geographical level at which census estimates are provided and each OA generally covers around 300 people. An LSOA is an aggregation of OA Levels over a larger area. In urban areas the OAs are small and in some rural areas they are large.

Every OA in Somerset has been mapped to at least one library using anonymised library membership postcode data. Where there are no library users recorded for an output area, drive times and distances are used to assess the nearest library so that there are no Somerset residents unaccounted for in the catchment needs analysis.

An OA has been mapped to one or more library catchments if it:

- a) has 5 or more users of that library resident in the OA, or
- b) has less than 5 library users of any other library but is nearest to that library by drive time

A library user defined as a registered member of the Libraries Service that has used a library either for borrowing activity, or they have booked a computer in the library, or logged on to the library WiFi. These are all activities that use the Library Management system, and for which we have member postcode data.

Although library catchments probably extend beyond Somerset boundaries in some areas, we have not mapped OAs outside of Somerset to any library catchment, in order to focus our assessments on the needs and impacts on Somerset residents. Similarly, we have not considered libraries outside of Somerset – some Somerset residents will use libraries in other authorities, but we have not mapped this usage.

Various geographical datasets have been layered onto the catchment mapping tool at OA level. Many of these datasets (e.g. usage and population statistics, driving times) are available at OA level; however some are only available at LSOA level. Where this is the case, each OA within an LSOA has been assumed to have the statistical attributes of the LSOA as a whole. We recognise that this may introduce potential inaccuracies at a granular, OA level, but consider that mapping catchments at LSOA level rather than OA level would be sub-optimal (because catchment boundaries cut across LSOA boundaries, and this approach would compromise the accuracy of important data that is available at OA level).

The mapping of catchments in this way has been used in the various statistical assessments to understand the communities served by different libraries. Having assigned a group of OAs to a library catchment, and mapped various datasets at OA level, we have been able to calculate average levels of need for catchments served by libraries, analyse the demographics and characteristics of catchment populations, and understand patterns of library use within each catchment.

The methodology employed was developed following feedback from an extensive community engagement exercise, carried out between September and November 2017. The project team have met with a wide range of parish, town, district and County councillors, representatives of library friends groups and other local stakeholders at a series of community engagement meetings, sharing an earlier version of the catchment map and needs assessment data. Community catchments and the relationships between towns, villages and surrounding areas were discussed, and some community representatives at a number of the meetings commented that the geography of catchments was influenced primarily by road travel time and the facilities available in different towns. At some meetings, representatives did not feel that the (previous) catchment aligned to their expectations. The catchment mapping methodology was modified to use driving time, rather than direct distance, to assign OAs to catchments, and the 'rules' for assigning OAs to catchments based on library usage were changed to align catchments more closely to patterns of usage, rather than just distance / travel time.

As a result of these modifications, catchments (and associated catchment-level needs measures) changed, some quite significantly. We consider that the modifications have improved the accuracy and usefulness of the tool.

3. Needs Assessment

3.1 Statutory considerations

Some legal considerations need to be taken into account by any local authority in forming a judgment on what is a 'comprehensive and efficient' library service:

- a) A general duty for decision makers to "*ask ... the right question and take reasonable steps to acquaint himself with the relevant information to enable him to answer it correctly*" [Secretary of State for Education v Tameside [1977] AC 1014 at p 1065]. At this stage, we feel that this general duty is covered adequately by the outcome-based approach set out in 3.2 below.
- b) Consideration of the findings of the Wirral Report (A local enquiry into the public library service provided by Wirral Metropolitan Borough Council led by Sue Charteris in September 2009, following an intervention by the Secretary of State into Library provision by Wirral Metropolitan Borough Council). As well as highlighting an adequate assessment of local needs as a fundamental requirement for a local authority to rationally determine its judgement of a comprehensive and efficient service, the Wirral Report also highlighted specific needs that, the enquiry felt, formed part of a statutory assessment:
 - Specific requirements for older people, disabled people, unemployed people and those living in deprived areas.
 - General requirements of children.

Having considered this statutory guidance, we propose to use the following data in the needs assessment:

- *Population over 64 years*
- *Population under 18 years*
- *Self-identified long-term health issues*
- *Employment decile average*

We consider that, in a library service context, the requirements of those living in deprived areas are assessed more accurately in a rural county like Somerset through a combination of the needs measures set out in this section, and the access measures set out in section 4. The standard Index of Multiple Deprivation (IMD) contains some constituent 'domains' which are less relevant to library service objectives (for more detail, see section 3.5 below), and the overall IMD can be skewed by some of these measures, particularly in a rural county. The 'barriers to housing / services' domain within the IMD is a measure of deprivation related to rural isolation, but also relative housing costs, and we feel that our approach to analysing access to alternative library services is likely to be a more valuable consideration for a review of library services.

3.2 Meeting locally determined and national outcomes

The library service is commissioned to deliver 6 outcomes, set out in full in the '[Vision, Strategic Direction and Outcomes Framework 2017-2021](#)' document adopted in November 2017 (see Appendix 2 of the report available on this link). These

outcomes support the delivery of the National outcomes framework set out in the 'Libraries Deliver' National Libraries Taskforce document, as well as the Society of Chief Librarians Universal Offer framework. However, they have been adapted to address the County Council's key priorities, and the needs of Somerset's population.

The outcomes framework sets clear objectives for the Libraries Service. In order to maximise the achievement of these objectives, we want to focus library service delivery in the areas where we can make the most impact. We believe that the best way to do this is to ensure that the needs assessment exercise is driven, where possible, by our outcomes framework. In the paragraphs that follow, we have considered each of the 6 outcomes and the measures that we consider should be used to assess the needs of the population in each library catchment in relation to that outcome.

3.2.1 Outcome 1: More people enjoy a vibrant and dynamic reading experience

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) More people – of all ages and from all backgrounds – will enjoy reading more on their own, through groups and social activities (universal objective)
- b) The Libraries Service will support improved literacy amongst the young and contribute to efforts to improve Somerset's educational outcomes (targeted objective – children, particularly under 5s; populations with low levels of literacy)
- c) Reading can improve well-being and help improve mental health and delay the onset of dementia (targeted objective – populations with low levels of well-being, poor levels of mental health and high incidences of dementia)
- d) Reading-related activities can bring people together from across generations and diverse sections of the community and combat social isolation, particularly amongst the elderly (targeted objective – elderly, populations with high levels of social isolation)
- e) Our statutory duty is to provide a comprehensive and efficient Libraries Service for all persons that want to make use of it, to promote the service, and to lend books and other printed material free of charge for those that who live, work or study in Somerset (universal objective)

We therefore propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Educational attainment decile (1b)*
- *Social isolation index (1c, 1d)*
- *Overall population (1a, 1c, 1d, 1e)*
- *Population under 5 years (1b)*
- *Population over 64 years (1d)*
- *Early Years Foundation Stage Profile - % achieving a good level of development (1b)*

3.2.2 Outcome 2: More people are enabled and inspired to make the most of the digital world

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) The Libraries Service will work in partnership with others to support digital inclusion through addressing access, skills, motivation and trust. This benefits individuals and the public sector if we can raise the pace at which the number of people digitally included increases, and is increasingly an expectation of a comprehensive Libraries Service (targeted objective – populations with high levels of digital exclusion)
- b) Digital transactions meet the rising expectations of a new generation (universal objective)
- c) The Libraries Service will inspire people to make the most of the digital age, raising aspirations and opening people's eyes to what is possible (targeted objective – populations with low levels of educational attainment, employment and income)
- d) Digital transactions and signposting to digital information is often more cost effective to provide: libraries have a crucial role in enabling savings across the public sector and supporting digital delivery (universal objective)
- e) Being digitally included can help people live independently in their own home for longer (targeted objective – populations with high levels of digital exclusion and high levels of adult social care intervention)

We therefore propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Digital exclusion decile average (2a, 2c, 2e)*
- *Overall population (2b, 2d)*
- *Income decile average (2c)*
- *Employment decile average (2c)*
- *Population over 64 years (2e)*
- *Number of Adult Social Care interventions decile (2e)*

3.2.3 Outcome 3: Library services strengthen and enable communities

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) The Libraries Service makes a meaningful contribution to the creation of thriving and resilient communities (targeted objective – communities / populations that lack community resilience)
- b) Libraries are seen (within SCC and by our partners) as key places through which to connect with local communities (universal objective)

Although we consider that measures of 'community resilience' are more likely to be subjective than empirical, we propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Social isolation index (3a)*

We are also exploring whether a robust relative assessment of the availability of alternative community hub facilities in different communities can be developed, and this may feature in future iterations of the needs assessment.

3.2.4 Outcome 4: People, in particular the most vulnerable, are enabled to make informed choices for their health and wellbeing

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) People's health and wellbeing is advanced through what the Libraries Service offers (targeted objective – populations with lower levels of health and wellbeing)
- b) The Libraries Service enables people to make informed choices to help themselves to improve their health and wellbeing, but provide particular support for those most in need (including the socially isolated and vulnerable) (targeted objective – elderly and / or socially isolated populations; populations with lower levels of health and wellbeing)
- c) The Libraries Service will be increasingly commissioned to deliver targeted interventions to support prevention and health and wellbeing (targeted objective – populations with lower levels of health and wellbeing)
- d) There is an increasing demand for quality mental and physical health information (universal objective)
- e) The Libraries Service can make a key contribution to the preventative aspects of adult social care and health (targeted objective – populations with lower levels of health and wellbeing; elderly populations; populations with a higher prevalence of mental health problems; populations with high levels of adult social care intervention)

We therefore propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Health decile average (4a, 4b, 4c, 4e)*
- *Self-identified long-term health issues (4a, 4b, 4c, 4e)*
- *Social isolation index (4b)*
- *Population over 64 years (4b, 4e)*
- *Overall population (4d)*
- *Number of Adult Social Care interventions decile (4e)*

3.2.5 Outcome 5: Libraries contribute to economic growth

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) The Libraries Service will have a key part to play creating a more dynamic and growth focussed business population, and through this will encourage innovation, help raise the level of successful business start-ups and help existing businesses survive and grow (targeted objective – areas with higher incidences of small businesses / start-ups)
- b) The Libraries Service will provide access to business information and facilities as part of the Council's integrated approach to supporting growth (universal objective provided for whole population and all small businesses)

- c) The Libraries Service, working in partnership, will help people develop skills and access the labour market, helping people into employment (targeted objective – populations with low levels of educational attainment, low levels of employment).

We therefore propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Population aged 18-64 years (5b)*
- *Income decile average (5c)*
- *Educational attainment decile average (5c)*
- *Employment decile average (5c)*

Data on the number of small businesses (businesses with 1-2 and 3-10 employees) is also available at Lower-layer Super Output Area level, and we have added this layer into the catchment mapping tool. However, this data is gathered through Mintel, a market research database which businesses in Somerset participate in voluntarily. This could compromise the accuracy and validity of the data at catchment level (we feel it is unlikely that the database includes all small businesses), and so we have not included this measure in the needs assessment at this stage. This position will be kept under review.

3.2.6 Outcome 6 (new): Libraries support Children and Young People to be safe, healthy & happy; and inspire them to develop skills and be ambitious for their future.

Within this outcome, we think that the following service delivery objectives can be prioritised by need:

- a) Children and Young People will be inspired through engagement with the Libraries Service. By providing a rich offering of resources and activities in a safe and universal environment, Libraries will develop skills and enhance ambition in young people (targeted objective – populations with higher numbers of families with low incomes; populations with lower employment and educational attainment levels)
- b) As a universal service library staff and volunteers will be trained to recognise where a child or family are starting to struggle and may have additional needs; to ‘think family’ and to listen to what families want (universal objective)
- c) The Libraries Service will support children and families to develop the skills and provide them with the tools they need to manage their own health and wellbeing. We also provide a wide range of health promoting information and activity (targeted objective – populations with higher levels of poor physical and / or mental health and wellbeing in children and young people)
- d) Libraries provide a safe environment where children and families can form supportive communities of interest without barriers, regardless of their social and personal backgrounds, special educational needs or disabilities (universal objective)
- e) Every young person will benefit from a broad range of pathways to further learning and employment, for their own achievement and for the success of the Somerset economy (targeted objective – populations with lower employment and educational attainment levels)

We therefore propose to use the following data (which is available at Output Area or Lower-layer Super Output Area level) in the needs assessment:

- *Income Child focussed deprivation decile average (6a)*
- *Income decile average (6a, 6e)*
- *Educational attainment decile average (6a, 6e)*
- *Employment decile average (6a, 6e)*
- *Population under 18 years (6b, 6d)*
- *Early Years Foundation Stage Profile - % achieving a good level of development (6b, 6d)*

3.3 Feedback from the community engagement exercise.

The needs assessment measures were reviewed following feedback from an extensive community engagement exercise, carried out between September and November 2017. The project team have met with a wide range of parish, town, district and County councillors, representatives of Library Friends groups and other local stakeholders at a series of community engagement meetings, sharing an earlier version of the catchment map and needs assessment data. Feedback from many of these meetings identified that communities were concerned about a number of potential impacts, and wanted us to take account of many different elements of need. Many of these have already been addressed above. In addition, we will also include assessments of the following dataset in the assessment of need:

- *Local plan target housing increases at built-up area level*
- *Population increase estimates derived from target housing increases.*

This data cannot be mapped at OA or LSOA level, and has been analysed for built up areas surrounding library buildings rather than for catchments as a whole.

The needs assessments shared during the community engagement exercise calculated need at catchment level only. This is a valid approach, because libraries serve the whole populations of their catchments. However, through discussions on the catchment level data in the community engagement meetings, it quickly became apparent that the average level of need at catchment level masked considerable variations within catchments. This is inevitable in any geographical area based average – at LSOA and OA level, there will generally be wide differences in levels of deprivation in different localities and households. But many community representatives felt that by only considering need at catchment level to assess the needs met by different libraries, many ‘pockets’ of high need were not being represented in the assessment effectively. The averaging effect was most pronounced in libraries with very large catchments, but there are also smaller catchments (Martock being a good example) where polarised levels of need within different parts of the catchment had the effect of cancelling each other out. To address this problem, for needs measures that are calculated at LSOA level, we have reviewed the extent and severity of pockets of need within catchments, as well as catchments as a whole, in the needs assessment. For the constituent ‘domain’ measures of the standard Index of Multiple Deprivation, the severity of pockets of deprivation can be assessed by the decile position of a LSOA, and the number of

LSOAs in a catchment with a given decile score can be counted to assess the extent of pockets of deprivation. This has been done for the following needs measures:

- *Digital exclusion decile average*
- *Educational attainment decile average*
- *Employment decile average*
- *Health decile average*
- *Income child-focussed deprivation decile average*
- *Income decile average*
- *Social isolation index*

Self-identified long term health issues are mapped at OA level rather than LSOA level, and the resulting 'pockets' are often too small to give a meaningful analysis. The Early Years attainment and Adult Social Care casework data used at catchment level in the needs assessment is considered to be less reliable at LSOA level, because the populations used in these calculations are a relatively small sub-set of the population as a whole.

3.4 Library usage and need

We consider that well-used libraries are very likely to be the most needed. Consideration of demand is also important to minimise the potential impact of any changes on populations. For these reasons we have included the following measures of library usage within the needs assessment:

- *Number of active borrowers*
- *Number of public computer users*
- *Event or activity participation*
- *Footfall*

All usage is per library, for the 2016/17 financial year.

3.5 Standard need measures not included in the assessment

Within the standard multiple index of deprivation developed by DCLG and widely used, there are 3 main 'domains' that we do not consider are relevant to a needs assessment for the library service:

- *Barriers to housing and services index* – measuring the physical and financial accessibility of housing and local services, through a range of housing exclusion measures and road distances to certain services. This is not considered appropriate for inclusion within the assessment of need for Somerset's Libraries Service because:
 - Improving access to housing is not considered to be a purpose – core or otherwise – of Somerset's Libraries Service.
 - A lack of access to the services considered by the index (GP surgeries, supermarkets, primary schools and post offices) cannot be addressed by the Libraries Service, nor can a library deliver an effective substitute to these services.

- We have specifically considered access to alternative library buildings as a separate assessment, rather than as part of the needs assessment.
- *Living environment index* – measuring the quality of the local environment, defined through a range of housing condition indicators as well as indicators for air quality and road traffic accidents. This is not considered appropriate for inclusion within the assessment of need for Somerset's Libraries Service because:
 - Improving housing condition is not considered to be a core purpose of Somerset's Libraries Service.
 - Similarly, the Libraries Service has a negligible role to play in improving air quality or preventing road traffic accidents.
- *Crime index* – measuring the rate of certain categories of crime. This is not considered appropriate for inclusion within the assessment of need for Somerset's Libraries Service because:
 - Neither preventing crime, nor supporting the victims of crime are currently considered to be core purposes of Somerset's Libraries Service.
 - We do not consider crime rates to be a reliable / meaningful proxy measure to assess need against the objective of creating 'thriving and resilient communities'.

The need indicators for this review were developed over a long period, and were reviewed and added to following consideration of the 'Longer-term, evidence based planning' guidance issued by the Libraries Taskforce in November 2017 (including detailed consideration of the 'useful datasets' annex). There are a large number of alternative datasets suggested in the annex. Many of these datasets are constituent measures in some of the indexes described above; others are not available at OA or LSOA level. There are also some suggested measures that we do not consider are appropriate for inclusion within the needs assessment for Somerset, given local circumstances. This position will be kept under review.

The guidance can be viewed at:

<https://www.gov.uk/government/publications/longer-term-evidence-based-sustainable-planning-toolkit>

4. Access Assessment

In order to analyse access to alternative library buildings, and also to analyse access considerations more generally, we have considered both the ease of travel between locations, the average level of car ownership within a catchment, and the characteristics of current library usage within catchment populations. The approach taken was developed significantly through the community engagement exercise, and has been modified as a result of feedback and learning. In particular, we have included information about the cost of public transport as a direct result of feedback from the assessment. The various datasets and measures that we consider to be most relevant to assessing access are described in this section.

We have assessed ease of travel by considering the different modes of transport people use, and (for each mode) assessing access to alternative library buildings for areas where the consultation proposals could potentially lead to the closure of an existing library building.

4.1 Walking and cycling

Walking

In a recent (2017) customer satisfaction survey, 54% of respondents said that they walked to the library (the total number of people responding to this question was 1,223). Most of these respondents are likely to live in built up areas, particularly the larger towns in Somerset – in 2016/17, over 60% of visits to Somerset library buildings took place in the major built up areas of Bridgwater, Burnham on Sea, Minehead, Taunton, Chard, Yeovil, Wells and Frome. The consultation proposals do not propose any change to these libraries, and they are likely to account for a large proportion of the library users across the service who regularly walk to the library. People using some of the libraries where the consultation is proposing changes are less likely to walk to access library services, because the catchments served by these libraries are more rural in nature. Walking is also less likely to be a feasible way of accessing alternative library buildings from many of the communities where changes are proposed.

Nonetheless, we have assessed walking distances, and the numbers of people within walking distance of alternative libraries, as part of the access assessment. To do this we have established a standard 'walking distance' of 2 miles. We consider this to be an appropriate distance for walking because:

- 2 miles is the statutory walking distance for primary school children (up to age 8) used to determine eligibility for school transport - primary school age children are a key demographic for the Libraries Service.
- Data from the National Travel Survey (see the Chartered Institute for Highways and Transportation 'Planning for Walking' report, April 2015) suggests that for journeys below 2 miles, more people choose to walk than take public transport, but for journeys above 2 miles, more people choose to take public transport.
- The English Public Library Standards set in 2001 are no longer extant, but the Welsh Government quality framework continues to set Public Library Standards for Wales (see 'Connected and Ambitious Libraries: The sixth

quality framework of Welsh Public Library Standards, 2017-2020'), and these standards are regularly reviewed. Quality Indicator 7 of the Welsh framework sets a standard that, for urban areas with a population density of >20 persons per hectare, 95% of the population should live within 2 miles of a library building.

- 2 miles can be comfortably walked in around 35-40 minutes, for most people at a rate of 2.73 miles per hour. See: <http://www.usroads.com/journals/p/rej/9710/re971001.htm>

Cycling

We have no information on the proportion of library users who cycle to get to the library, but we consider it likely that many do. Many parts of Somerset have an excellent environment for cycling; towns are relatively compact and there are large areas of flat topography. The 2010 National Highways and Transportation Public Satisfaction (NHT) Survey showed that 6% of Somerset residents cycle daily and that another 8% cycle 2-3 times per week - well over the national average of 3%, showing that it is a viable option for many people. We have assessed cycling distances, and the numbers of people within cycling distance of alternative libraries, as part of the access assessment. To do this we have established a standard 'cycling distance' of 3.2 miles. We consider this to be an appropriate distance for cycling because:

- Up to 5km is generally regarded as a distance easily cycled by most people (source: Somerset County Council Cycling Strategy, 2012).
- 63% of people in the South West region who cycle at least once per month usually or always do so for less than 30 minutes (source: Department for Transport walking and cycling statistics 2010/11, Table CW0701). 3.2 miles is a comfortable distance for most people to cycle in less than 30 minutes.

Mobility and disabled access issues

Many people are unable to walk or cycle, and for many others (particularly some elderly people), the distances determined above would not be considered reasonable walking / cycling distances. For this reason, walking and cycling distances will be used in conjunction with assessments about access by public transport, to ensure the needs of people who have difficulty walking or cycling are taken into account. Where the walking and cycling distances set out above are considered as mitigation for the potential impact of changes proposed, our equalities impact assessments will explicitly consider alternative mitigations for disabled people and those will mobility issues.

4.2 Access by car

The 2017 customer satisfaction survey indicated that around 42% of respondents said they used their own transport to get to the library; this could include some cyclists, but the majority of people will probably be using their own vehicle. Feedback from the community engagement exercise emphasised the importance of car travel to enable people to access alternative facilities. We have assessed driving time and distance as part of the access assessment, using the following approach:

- Drive time in minutes has been drawn from Open Street Map data, and we have used routing software to calculate the drive time and distance from the centre of each Output Area (OA) in Somerset, to each of our current libraries.
- This data has been layered onto the catchment mapping tool. The nearest 5 libraries appear on the mapping tool for each OA, which gives a detailed view of driving times at a local level to alternative library buildings.

The driving times calculated are for light traffic conditions and are likely to be longer at peak times of the day.

Household vehicle ownership has also been considered, using census data which has been layered into the catchment mapping tool at LSOA level.

4.3 Public Transport

Only 4% of respondents to our recent customer satisfaction survey said that they used public transport to access the library; however, public transport is an important mode of transport for a number of more vulnerable groups, and is the only means of access to services for a significant minority of Somerset residents.

The County Council's Transporting Somerset department have provided route and timetable data for the analysis of availability, frequency and bus travel time between communities. We have assessed the most convenient public transport service (where public transport exists) between communities that are potentially affected by the consultation proposals, and alternative library buildings. Generally, we have only assessed public transport between built up areas. The cost of public transport was identified as a significant issue in the community engagement exercise, and we have also included the Adult return fare within the access assessment in order to assess affordability.

Community transport groups, car schemes and demand-responsive 'slinky' services provide a vital service in rural areas without alternative transport links, and for vulnerable people who are unable to access scheduled public transport. We have reviewed the availability of these services as part of our public transport assessment.

Finally, public transport services may change in the future, particularly where routes are not commercially sustainable and reliant on public subsidy. We have considered the sustainability of local public transport services, using the assessment of subject matter experts within the county council.

4.4 Travel patterns and current library usage.

The catchment mapping tool allows us to analyse library usage within each catchment, and to understand what libraries people in different areas are currently using. Many library users will use more than one library in Somerset, and in some library catchments, the majority of library users use a different library to the catchment library. This gives an important indication of ability to access alternative libraries in different areas of the county. If the vast majority of usage within a catchment is focused on the catchment library, it tells us that the catchment

population is likely to find it more difficult / less convenient to access alternative libraries.

We have also considered feedback from the community engagement exercise about where people in different communities go to access services as part of our assessment of access. This information is subjective and largely anecdotal, and it cannot be distilled as a numerical, comparable measure. Nonetheless, the project team has gained some important insights about travel habits in some communities, and these have been used to inform the consultation proposals in some areas.

These considerations have mainly been used to identify the most appropriate alternative library buildings for libraries that are potentially affected.

To summarise, we have included the following measures of library usage within the access assessment:

- *Distance by road*
- *Is an alternative library building within walking distance? (binary measure)*
- *Is an alternative library building within cycling distance? (binary measure)*
- *Driving time*
- *Household vehicle ownership rates*
- *Public Transport journey times to alternative library building*
- *Public Transport frequency to alternative library building*

5. Equalities Impact Assessment

5.1 Population and user data

Datasets on the protected characteristics of Age, Disability, Sex and Race have been collated and considered for users (active library members) of individual libraries and library catchment populations. 2011 census data for households within each library catchment Output Area has been used to establish the proportion of the catchment population within different groups (for disability, we have used census data on self-identified long-term health issues). When registering for library membership, library customers are asked to provide some personal details. The questions are not compulsory, and some customers decline to answer certain questions, but for the protected characteristics above we consider that we have a sufficiently large number of responses to be able to adequately determine the proportion of potentially affected individuals within the different groups.

We have compared the proportion of groups with the characteristics of Age, Sex, Disability and Race in library catchments and Somerset as a whole to identify catchments where certain groups are over-represented compared to the Somerset average. We have carried out a similar comparison between active library member populations of individual libraries and the number of active library members in Somerset as a whole. In order to quantify the statistical significance of differences in the proportions of the different represented groups, “two-tailed P-Value” tests with a Confidence Interval of 95% have been undertaken against each of the indices. Only statistically significant over-representative differences (as determined by this test) have been taken into account in the assessment.

Census data on the protected characteristic of Religion is also available for each library and library catchment area. However, the number of people in many religious groups is very low at catchment and individual library level, and the low numbers mean that the results of our initial comparative analysis are not, in general, statistically significant. Having explored and analysed this dataset, we are not currently confident in its use, however, this will be kept under review and re-considered before any final recommendations are developed. The amount of information held on the declared religious affiliation of library members is too low to enable meaningful analysis.

5.2 Other measures used in the equalities impact assessment

Data from other sources has also been included within the assessments, in order to give further information on the characteristics of Disability, Low Income and Rurality. In addition, we have included a measure of Social Isolation within the Equalities Impact Assessment to provide context. These measures are set out below

- *Health decile average (this may indicate higher levels of disability)*
- *Adult Social Care interventions decile index (a greater number of Adult Social Care contacts is likely to be an indicator of the prevalence of disability).*
- *Income decile average (as an indicator of areas with higher incidences of Low Income households).*

- *Employment decile average (to support assessments of the characteristic of Low Income)*
- *Barriers to housing / services decile average (a measure of rurality)*
- *Social isolation index (used to provide contextual information)*

At this pre-consultation stage we do not have any reliable data or meaningful information on the relative prevalence of library service users with the protected characteristics of Gender Reassignment, Sexual Orientation, Religion and Belief, Marriage and Civil Partnership or Pregnancy. Further potential evidence bases for these groups will be reviewed before any final recommendations are developed; at this stage we have made informed assumptions about potential impacts on these groups.

Finally, all of the measures within the Access assessment have also been used within the Equalities Impact Assessment, in particular to assess the effectiveness of mitigation measures.

6. Value for Money assessment

Value for money in the Libraries Service is considered by analysing the level of usage of different libraries, and various unit costs. Within the Somerset Libraries Service, we have a developing performance management framework which attempts to assess the social value (in terms of likely impact on outcomes) provided by different libraries around the County, using various participation counts. However, data for 2016/17 is limited as the framework was implemented during this financial year. We will review the use of this potential dataset to support the Value for Money assessment before the development of final recommendations, and may include further 2017/18 data in the final assessment if it is available and considered sufficiently robust.

6.1 Usage measures

We consider that our well-used libraries are likely to deliver more social value than libraries with lower levels of usage. This is because if more people use our libraries (for example, to borrow items, use the public access computers, or take part in activities and events), then we will have more of an impact on the outcomes set out in our outcomes framework.

The following measures of library usage have been incorporated within the assessment. Note that for all these measures, results are analysed as totals for each library, rather than each library catchment. This means that, regardless of where a user lives, they will be 'counted' against the usage measures for libraries that they use. Many users will be counted twice because they use more than one library, but no user will be 'double counted' within a usage measure for an individual library. The user data is also used within the catchment mapping tool, to analyse the geographical distribution of library usage, and (in the case of the active user measure) to define and determine our library catchments.

- *Active Users* - an active user is defined as a registered member of the library service that has had an interaction with the Library Management System. This includes borrowing activity, computer usage in the library between 1st November 2016 - 31st October 2017. The mapping of active user data is likely to lead to a degree of inaccuracy at individual catchment level, principally where library members relocate. If a library member moves, they may use any library in the County without updating their address (and the catchment mapping tool would assign the usage to a false Output Area). Library staff encourage customers to update their address records, and we feel that this data is sufficiently accurate for inclusion within the assessment.
- *Active Borrowers* - an active borrower is a registered library user that has borrowed an item (such as a book or audio book) from the library service by 'checking' out that item using their library membership card. Borrower data has been included for the period of the year from 1st November 2016 to 31st October 2017. By using membership records, we have been able to map each active borrower to an Output Area, and hence a catchment. However, in the value for money assessment, the active borrower measure is calculated in terms of the number of active borrowers in a year, per library.

- *People's Network Computer users and Wifi users* - to use our Public Computer Access terminals a library or public WiFi, customers need either to be registered as an individual library member or as a temporary individual visitor. Data is recorded for both number of unique users and number of log-ons in each library.
- *Event participation* – manual records are maintained of the number of people attending library events and activities at different libraries, and this data has been considered within the assessment. Event participation is just a 'count'; we do not require attendees to register, or give any details of address or other personal characteristics. For this reason, we have been unable to map event participation to catchments, and individual users are likely to appear in library 'counts' where they regularly attend events across the year. This is not a concern for the value for money assessment, which analyses the total number of participations for each library. The data is taken from manual counts for the financial year 2016/17, and we are aware that under-recording of event participation occurs at some libraries. Where this is the case, it is noted within the needs assessment.
- *Footfall* - visitors to the majority of libraries are recorded by automatic counters on exit. The remaining libraries estimate footfall through sample visitor counts. These are summarised each month and the annual total for the financial year 2016/17 has been included within the value for money assessment. As with event participation, there are some potential inaccuracies where libraries operate in shared buildings – people who are not accessing the building to use the library may be counted in the footfall numbers. For this and other reasons, footfall is given less weighting in our assessment of value for money than other usage measures.

We have considered the relationship between the above usage measures and opening hours at different libraries, and have attempted to develop usage measures which can be adjusted per hour of opening, to offer a different perspective on the comparison of usage between larger and smaller libraries. We do not consider that this is as straightforward as measuring usage per hour of opening, as in libraries with reduced opening hours, users (particularly regular users) will 'concentrate' their visits to hours when the library is open. Work to develop an appropriate and robust measure of adjusted usage is continuing and will be considered before any final recommendations are developed.

6.2 Unit Costs

The economic value of different libraries is compared by using straightforward unit costs. For each of the following unit cost, usage in 2016/17 has been divided by the net operating cost of the library for that year to obtain a simple 'cost per...' measure. We have not attributed fixed costs or overheads to libraries for the purposes of this analysis, as we consider that this would distort comparisons due to the difficulties and subjectivity of accurately apportioning overheads at individual library level. The unit cost measures included are:

- *Cost per active borrower*
- *Cost per People's Network user (for public computer access use)*
- *Cost per event participant*

Annex 1: List of definitions and sources

Measure	Definition / Explanation	Source
Need		
Overall population	2016 resident population estimates from the Office for National Statistics. The estimate is based upon the 2011 census population, adjusted with evidence taken from GP patient register data. (Note: Data does not include people who enter the county or catchment for work or education.)	http://www.somersetintelligence.org.uk/people-and-neighbourhoods/
Population under 5 years	<i>As above</i>	
Population under 18 years	<i>As above</i>	
Population aged 18-64 years	<i>As above</i>	
Population over 64 years	<i>As above</i>	
Self-identified long-term health issues	Data from the 2011 Census giving the proportion of the population who self-identified with a long-term health issue, either causing 'activities to be limited a little', or 'limited a lot'.	http://www.somersetintelligence.org.uk/health-and-wellbeing/
Employment decile average	The Employment Deprivation Domain measures the proportion of the working-age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities.	http://www.somersetintelligence.org.uk/unemployment-and-economic-inactivity/
Educational attainment decile	The Education, Skills and Training Deprivation Domain measures the lack of attainment and skills in the local population. The indicators fall into two sub-domains: one relating to children and young people; and one relating to adult skills.	http://www.somersetintelligence.org.uk/education-skills-and-learning/
Social isolation index	Assessed by the Somerset Intelligence Unit on a number of factors including age, household composition, internet usage and more at LSOA level	www.somersetintelligence.org.uk/social-isolation.html

Measure	Definition / Explanation	Source
Early Years Foundation Stage Profile - % achieving a good level of development	Early Years Foundation Stage (EYFS) refers to children who at age five have completed their Reception year in primary, infant or first schools. The main overall indicator for children at the end of the Early Years Foundation Stage is the percentage of children achieving a good level of development (GLD) for which they need to achieve Expected or Exceeding in all prime Learning Goals (including Literacy and Mathematics).	http://www.somersetintelligence.org.uk/attainment.html
Digital exclusion decile average	To help understand digital inclusion at a neighbourhood level the Somerset Intelligence Partnership identified areas at higher risk of being digitally excluded. Based on nationally published data, each Somerset neighbourhood (LSOA) has been ranked against five suggested risk indicators (older age, low income, disability, low adult skills, and poor broadband speed). A combined ranking (based on 'rank of average rank') presents an overall Somerset picture. This combined rank was used to put each area into deciles.	http://www.somersetintelligence.org.uk/digital-inclusion/
Income decile average	<p>Income deprived families are defined as families that receive:</p> <ul style="list-style-type: none"> • Income Support; or • income-based Jobseekers Allowance; or • income-based Employment and Support Allowance; or • Pension Credit (Guarantee); or • Working Tax Credit or Child Tax Credit with an equivalised income (excluding housing benefit) below 60 per cent of the national median before housing costs <p>The measure is based on 2012 data. Additional statistical methods are applied to construct the Index score.</p>	https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015

Measure	Definition / Explanation	Source
Number of Adult Social Care interventions decile	The adult social care intervention decile measures the proportion of adult social care clients served by Somerset. As this is a Somerset measure, the decile is relative to Somerset. This means there are an equal number of areas of decile 1 as there are of decile 10.	For data protection reasons these statistics are not being made available to the public.
Income Child focussed deprivation decile average	The Income Deprivation Affecting Children Index (IDACI) measures the proportion of all children aged 0 to 15 living in income deprived families. It is a subset of the Income Deprivation Domain which measures the proportion of the population in an area experiencing deprivation relating to low income. The definition of low income used includes both those people that are out-of-work, and those that are in work but who have low earnings (and who satisfy the respective means tests).	http://www.somersetintelligence.org.uk/idaci/
Local plan target housing increases at built-up area level	Proposed targets for housing in District Local Plans + strategic housing sites with delivery planned by 2028	District Council Local plans (adopted and unadopted), Local Enterprise Partnership Strategic Housing Sites Aug 2017.
Population increase estimates derived from target housing increases.	Target housing increases multiplied by the estimated occupancy of housing in Somerset – 2.2 people per dwelling	
Demand		
Number of active borrowers	An active borrower is a registered library user that has borrowed an item (such as a book or audio book) from a library by 'checking' out that item using their library membership. Borrower data has been included for the period of a year: 1st November 2016 – 31st October 2017.	Library Management System
Number of public computer users	Data is recorded for both number of unique users and number of log-ons in each library. Anonymised data is collated into monthly and annual reports	Library Management System

Measure	Definition / Explanation	Source
Event or activity participation	Participants to group events held in each library during opening hours are recorded by staff and Friends Groups.	Library Service records
Footfall	Visitors to the majority of libraries are recorded by automatic counters on exit. The remaining libraries estimate footfall through sample visitor counts. These are summarised each month and the annual total for the financial year 2016/17 has been included within the value for money assessment.	Library Service records
Access		
Distance by road	Open Street Map data, and routing software used to calculate the drive time and distance from the centre of each Output Area (OA) in Somerset, to each of the existing libraries	https://somcatchments.azurewebsites.net/
Is an alternative library building within walking distance? (binary measure)	2 miles - the distance walked within 40 minutes at an average walking speed of 3.1 miles per hour.	Biomechanics and Biology of Movement. Human Kinetics. pp. 67–78. ISBN 978-0-7360-0331-5.
Is an alternative library building within cycling distance? (binary measure)	3.2 miles - the distance cycled in 30 minutes at an average speed of 6.4 miles an hour. (Average cycling speed = 12.32 miles per hour.)	Strava data published by Cycling weekly.
Driving time	Open Street Map data, and routing software used to calculate the drive time and distance from the centre of each Output Area (OA) in Somerset, to each of the existing libraries	https://somcatchments.azurewebsites.net/
Household vehicle ownership rates	2011 Census data	
Public Transport journey times to alternative library building	Transporting Somerset advice and Traveline South West	http://www.travelinesw.com/
Public Transport frequency to alternative library building	Transporting Somerset advice and Traveline South West	http://www.travelinesw.com/

Measure	Definition / Explanation	Source
Value for Money		
Cost per active borrower	Annual running costs in 2016/17 of a particular library divided by the number of active borrowers from that library.	Library Management System
Cost per People's Network user (for public computer access use)	Annual running costs in 2016/17 divided by the number of unique users of the public computers in a particular library.	Library Management System
Cost per event participant	Annual running costs divided by the number of participants to any event held in a particular library during opening hours in a year. (Note: participants in some events run by Friends Groups and others outside usual library hours may not be recorded)	