

Perth City Infrastructure Report

Working Document

November 2017

Introduction & Context

Perth is the administrative, cultural and commercial centre of the area. The city developed around its port and river crossings and was a significant ecclesiastical centre. More recent history has capitalised on transport connections and the city has become an important centre for the road and railway networks.

Until the 19th century, the area defined by the inner ring road largely represented the entire extent of Perth, but as the city expanded, the role of the central area became more specialised in retailing and employment as housing moved to the suburbs. Recently this trend has reversed with a marked increase in central area residents.

The Perth Core Area is identified in TAYplan as being the location for the majority of development in Perth and Kinross. Within the city there is limited potential to bring forward brownfield sites for development and, as a consequence, significant green field expansion is required. The adopted Local Development Plan sets out a strategy which concentrates on the delivery of two key strategic sites to the north-west and north of Perth. These will become the prime source of future employment and housing land during and beyond the plan period. The concentration of development in this part of the city creates economies of scale around major infrastructure and maximises the potential to improve public transport links, and integrate employment and housing land.

The Proposed Plan includes the significant expansion of site MU70 at Perth West towards the south. The Council facilitated joint working between the various landowners / potential developers and held a charrette in March and April 2015 to inform the preparation of a Masterplan Framework for the wider Perth West site. The charrette design workshops allowed key stakeholders, including the community, an input at an early stage.

There are approximately 24792 residential properties within Perth (PKC Corporate Address Gazetteer, 2017). With an average household size of 2.08 (based on Census trends) it is estimated that the settlement's current population is 51573.

The adopted Local Development Plan contains Long Term Strategic proposals (Bertha Park; Almond Valley; Perth West sites) to develop new sustainable communities and provide a long term supply of development land extending beyond 2040. The long term strategic plan provides land for approximately 7000 houses along with employment space. Outwith the long term plan, the Local Development Plan allocates land for 674 residential sites.

This means that the proposed plan allocates land for a total of 7674 houses within Perth over the next 20-30 years. Based on Census trends, the average household size for the settlement will fall to 2.05 by 2028. It is estimated that as a result of new development, the population could increase to 66,555 in the next 20+ years.

This infrastructure study has been undertaken to ensure that the infrastructure capacity within the area is adequate to support the level of growth envisaged within the LDP. This infrastructure capacity assessment will highlight the current infrastructure provisions within Perth and highlight any shortfalls which could be addressed through the LDP or supplementary guidance.

Area	Current population estimate	Long-Term Population Estimate (2040)	Current residential properties estimate	Long –Term Residential properties estimate (2040)
Perth City	51,573	66,555	24,792	32,466

**It should be noted that although land for a total of 7674 houses is allocated; market evidence suggests a slower build rate which is likely to result in the housing land supply lasting well beyond the 20-30 year mark. This will be regularly monitored however for the purposes of this report it is assumed that 7674 new houses could be occupied in by 2040*

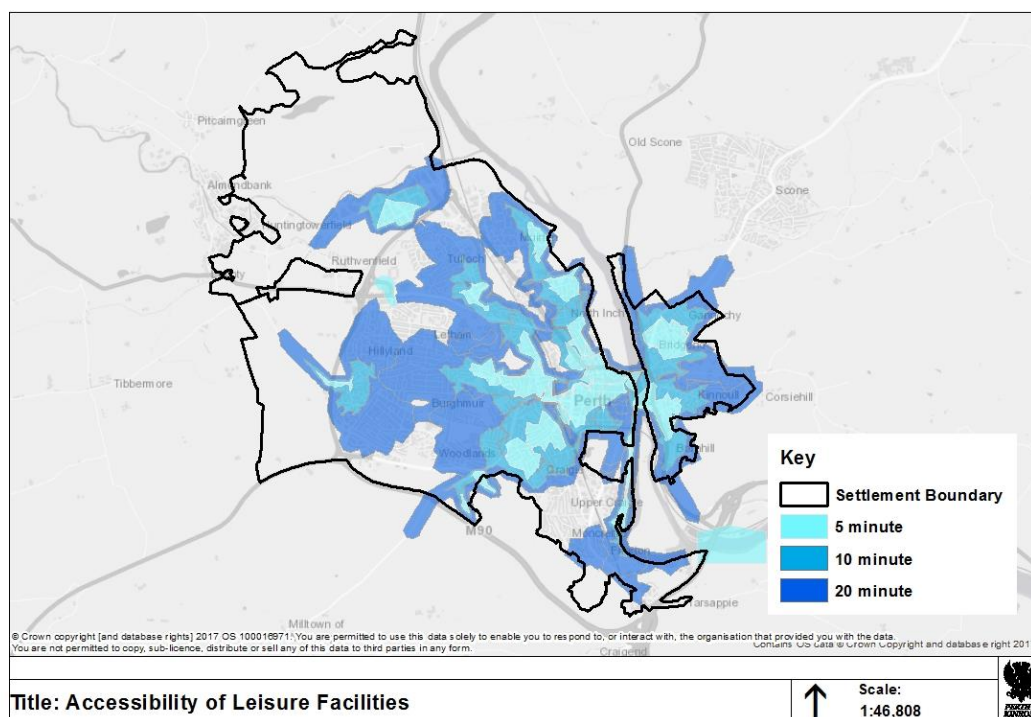
1. Community Facilities and Recreation

As populations are growing in the tiered settlements, community facilities are being used more frequently and so expansion and development may need to occur to satisfy the needs of all the residents living in these areas. The cultural identity of a town is improved by community facilities being present as it offers opportunities for social interaction and is important for local identity. This report will show how many local amenities there are in each town and how accessible they are from different residential areas within the settlement.

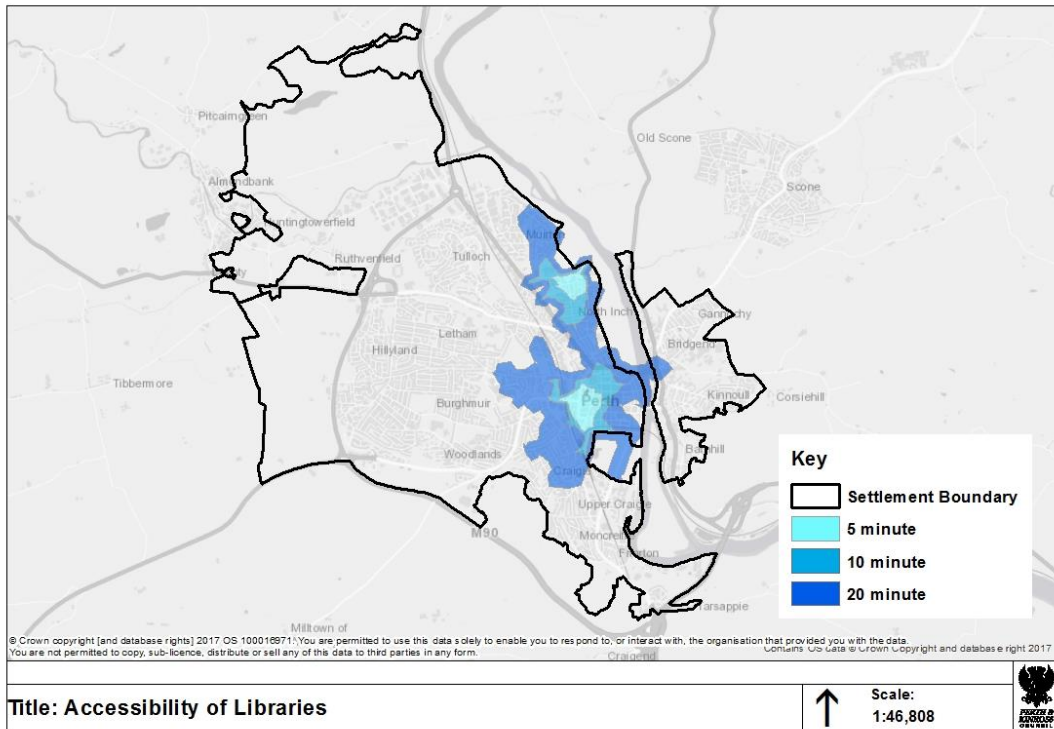
The table below highlights the current provision of community facilities within Perth City:

Community sports facility and leisure activities	There are 20 community sport and Leisure facilities in Perth.
ATMs	There are 24 ATMs in Perth.
Petrol stations	There are 7 petrol stations in Perth.
Libraries/mobile libraries	There are two libraries in Perth.
Community/town hall	There are 36 community halls in Perth (including church halls and community buildings).
Post Offices	There are 5 post offices in Perth.
Public Houses & Hotels	There are 56 public houses & hotels in Perth.
Recycling Points	There are 25 recycling points in Perth.
Recycling Centres	There are 2 recycling centres in Perth.
Council Offices	There are 13 Council offices in Perth.

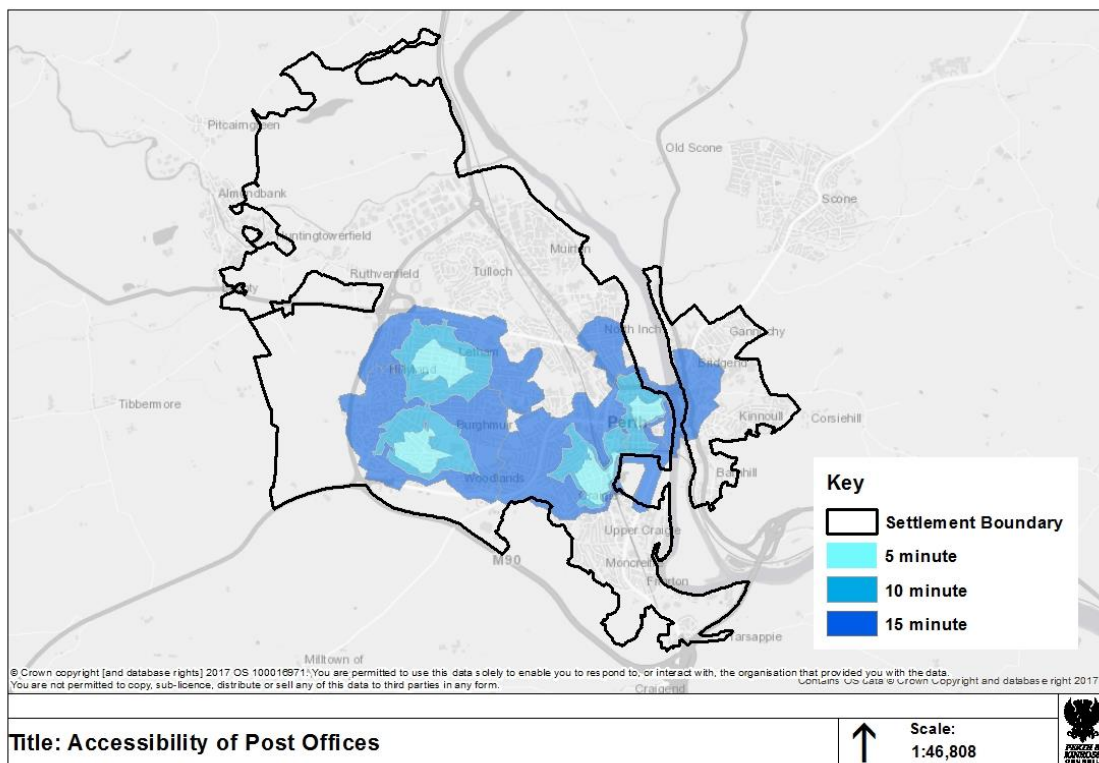
The table above highlights the provision of community facilities within Perth at the time of the survey in 2015. The maps below show the accessibility of some these services. The analysis highlights the number of properties that are within 5, 10 and 20 minutes walking distance to services.



21431 households are less than 20 minute walk from the nearest leisure facility in Perth. This is **87%** of all households included in the survey.



8087 households are less than 20 minute walk from a library in Perth. This is **32%** of all households included in the survey.



15228 households are less than 20 minute walk from a post office in Perth. This is **61%** of all households included in the survey. The survey does not include Muirton Post Office which is located on the north-east of the settlement.

1.1 Implications for the Proposed Plan

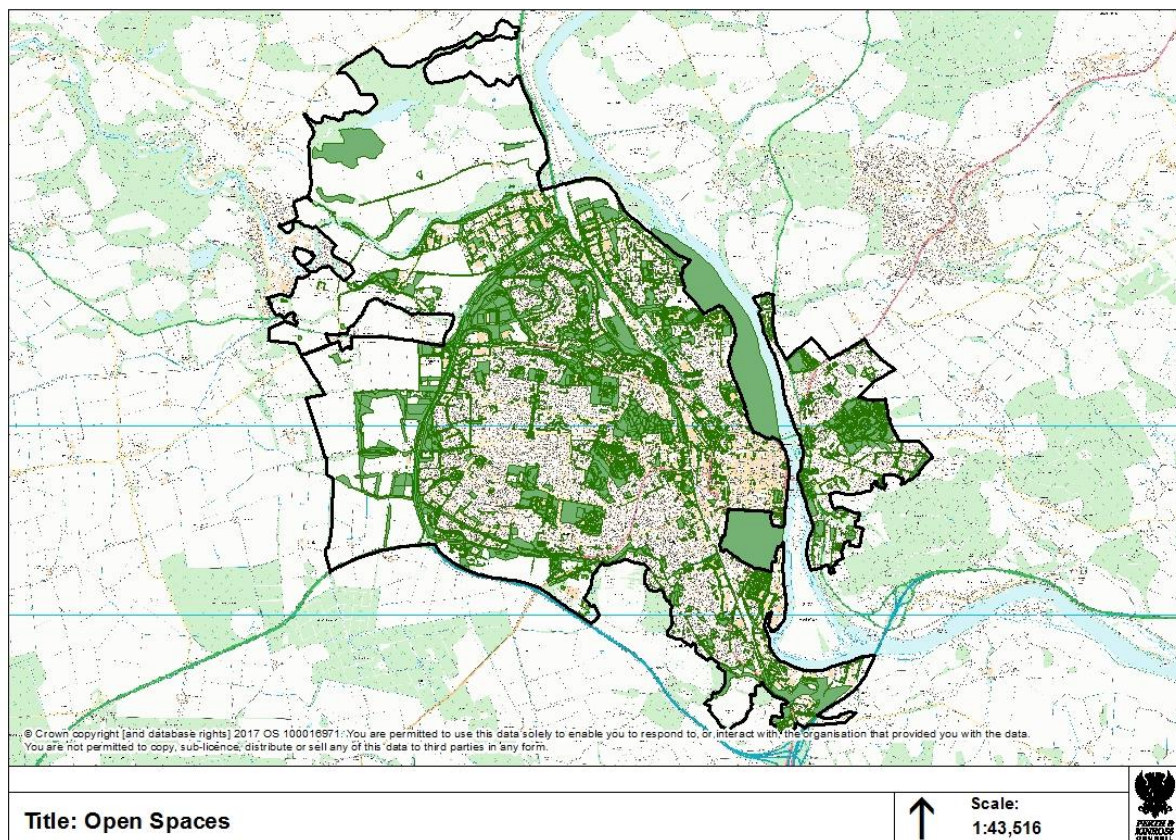
Perth City provides community and leisure facilities as well as a wide range of services not only to locals but for residents across the region. The survey shows that the accessibility of facilities is relatively high across the settlement with an especially high concentration of services in the City Centre.

The Proposed Plan continues to protect the City Centre for retail, leisure and community facilities. The Centre is also key place for cultural facilities such as Perth Concert Hall and Perth Theatre. The more flexible use of restaurant cafes and bars with the introduction of al-fresco pavement areas has extended the night time economy, improving the quality of the City Centre. The Proposed Plan also requires long term strategic sites to provide spaces for community facilities which would serve the new neighbourhoods.

2. Open Space

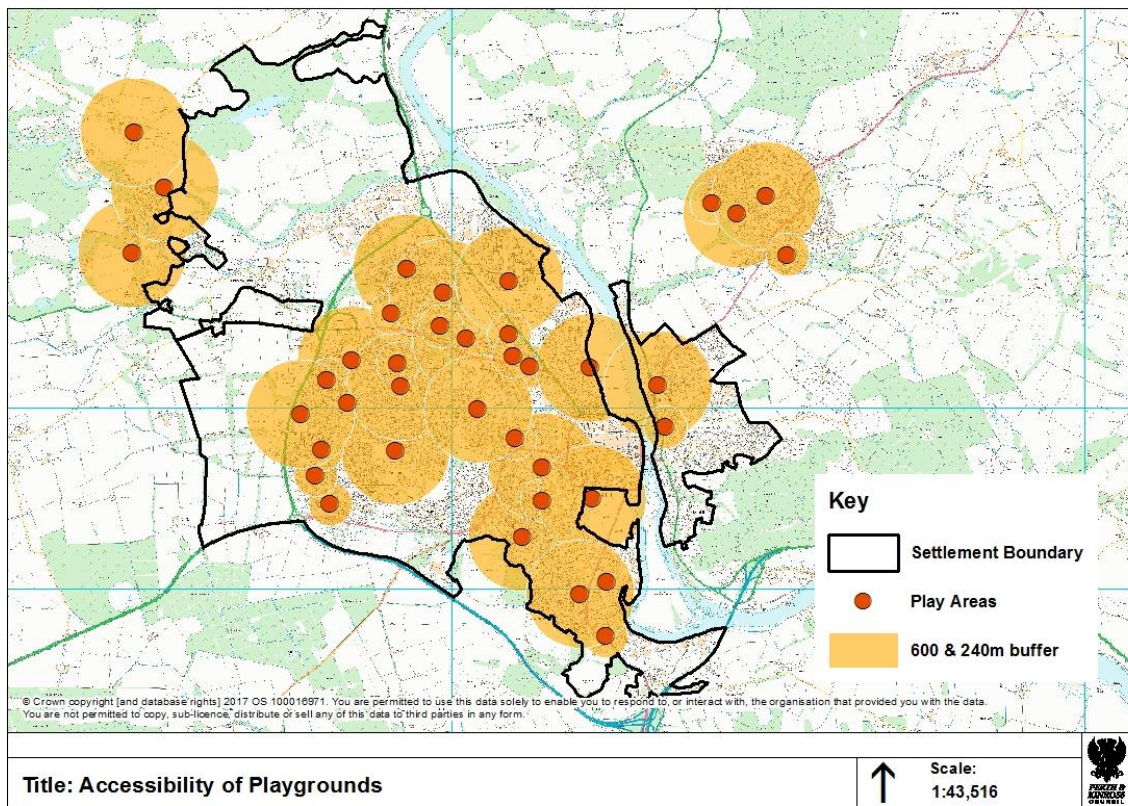
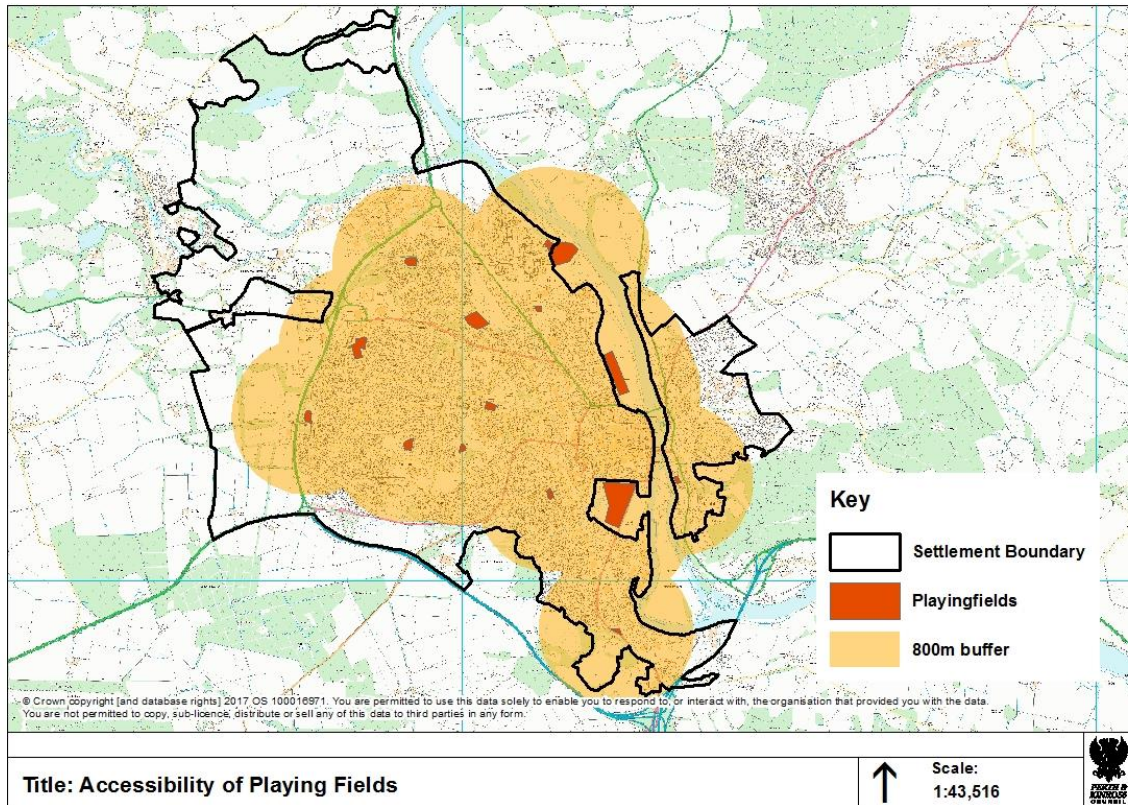
Open space is crucial within a settlement and adds value to the community for both recreational and amenity purposes. The natural environment is a valued national asset offering a wide range of opportunities for enjoyment. Open Space makes a positive contribution to quality of life by breaking up the built up urban areas and creates wildlife habitats which increases biodiversity. Open space should be present in every settlement and should be accessible by all residents. This study will comment on the suitability of the current open space provision in the face of population growth and highlight any shortfall which needs to be addressed.

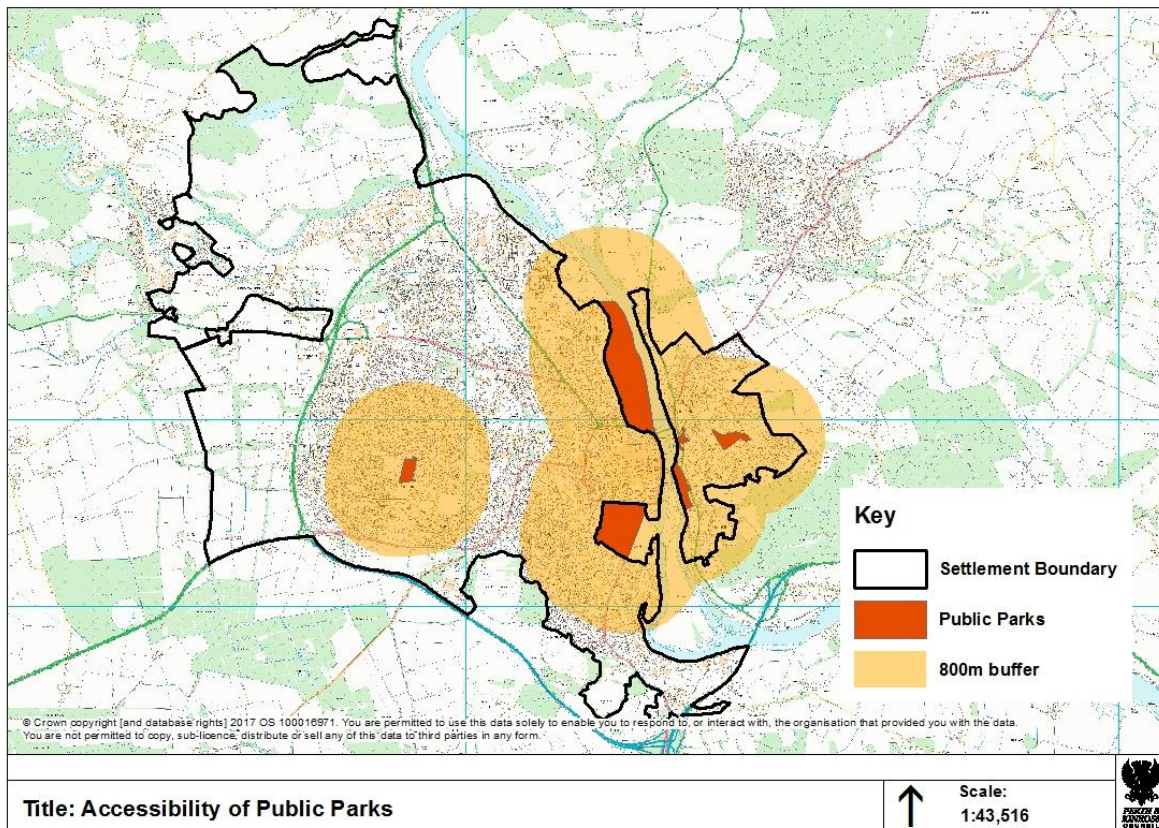
The map below highlights open spaces within Perth City which are used for outdoor activities or provide visual amenity for residents. Although outside of the settlement boundary, the study includes North Inch and South Inch as they are key open space assets for the settlements. The open space provision of the settlement is approximately 668 ha which is 12.9 ha/ 1000 people.



In order to further develop our understanding of the provision of functional open spaces within the council area, an Open Space Audit has been developed examining the supply of playgrounds, playing fields and public parks

2.1 Access to Open Spaces





96% of households are within 10-15 minute walk of a playing field in Perth. Besides the highlighted pitches, small kickabouts and school playing field also provides access to this function.

61% of households are within 10-15 minute walk from a public park or garden in Perth.

87% of households are within a distance from playgrounds which is considered to be appropriate for children at target ages.

2.2 Cemetery Provision

Larger cemeteries are likely to be needed in Perth as most are about to reach capacity with no new lairs existing.

2.3 Implications for the Proposed Plan

The Proposed Plan safeguards existing open spaces such as playgrounds, playing fields, parks and cemeteries. The study also highlighted where there is a need for improvement in order to meet existing as well as future demand:

Playgrounds	Perth has a high level open space provision which serves well the existing community. Functional open spaces are highly accessible and there is an extensive network of green and blue corridors connecting open spaces and neighbourhoods. Due to the significant expected population increase, it is important to ensure that high standards are kept within new developments as well. The Proposed Plan requires large allocated sites to have a masterplan which allows for developing open spaces that are well connected and located strategically to ensure accessibility for new and existing communities.
Playing Fields	
Public Parks	
Cemeteries	The Proposed Plan identifies two Cemetery Search Areas at Perth West and Isla Road.

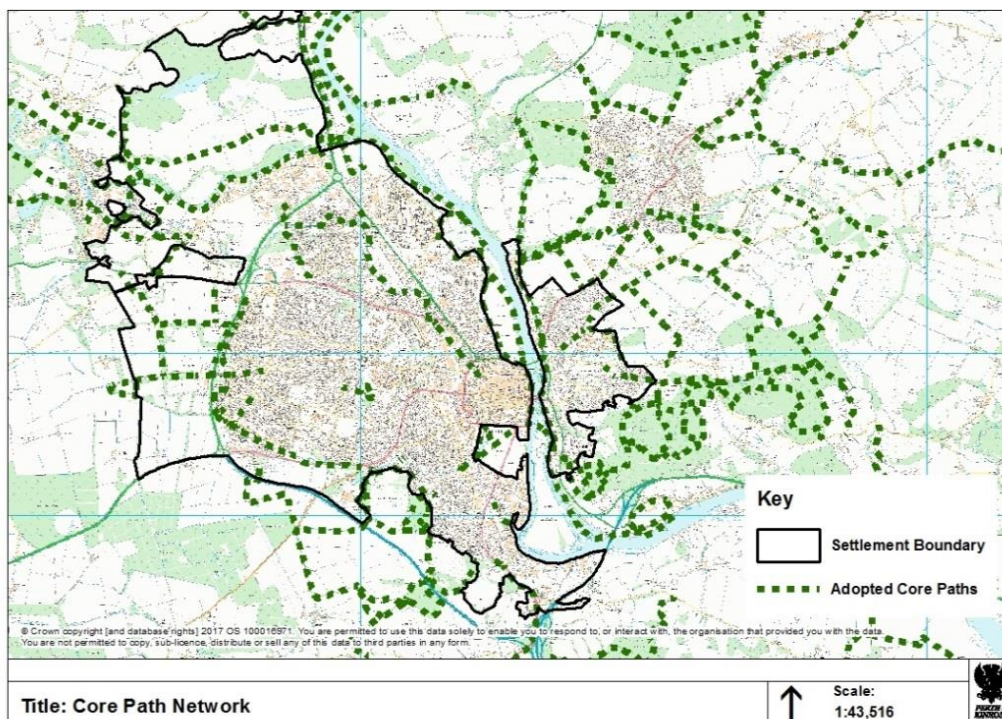
Table 1. The table summarises the conclusion of the quantity and accessibility audit and the Future Cemetery Strategy.

3. Transport

This section aims to comment on the active and public transport networks in settlements. Furthermore, it will examine the capacity of the road network as well as the parking provision of towns.

3.1 Walking

The map below shows that Perth has many existing core paths in the city and within the surrounding areas. Besides the Core Paths, Perth City has an extensive green and blue infrastructure which encourages active transport within the settlement. Perth City Centre is highly walkable with pedestrianised streets, alleys and wide pavements. The Perth City Plan also outlines a range of improvements to active travel infrastructure within the City including public realm improvements. The Core Path also provides good active travel connections to Perth Core settlements which rely on Perth for services and employment. The Proposed Plan requires new developments to connect to existing path and enhance the network.



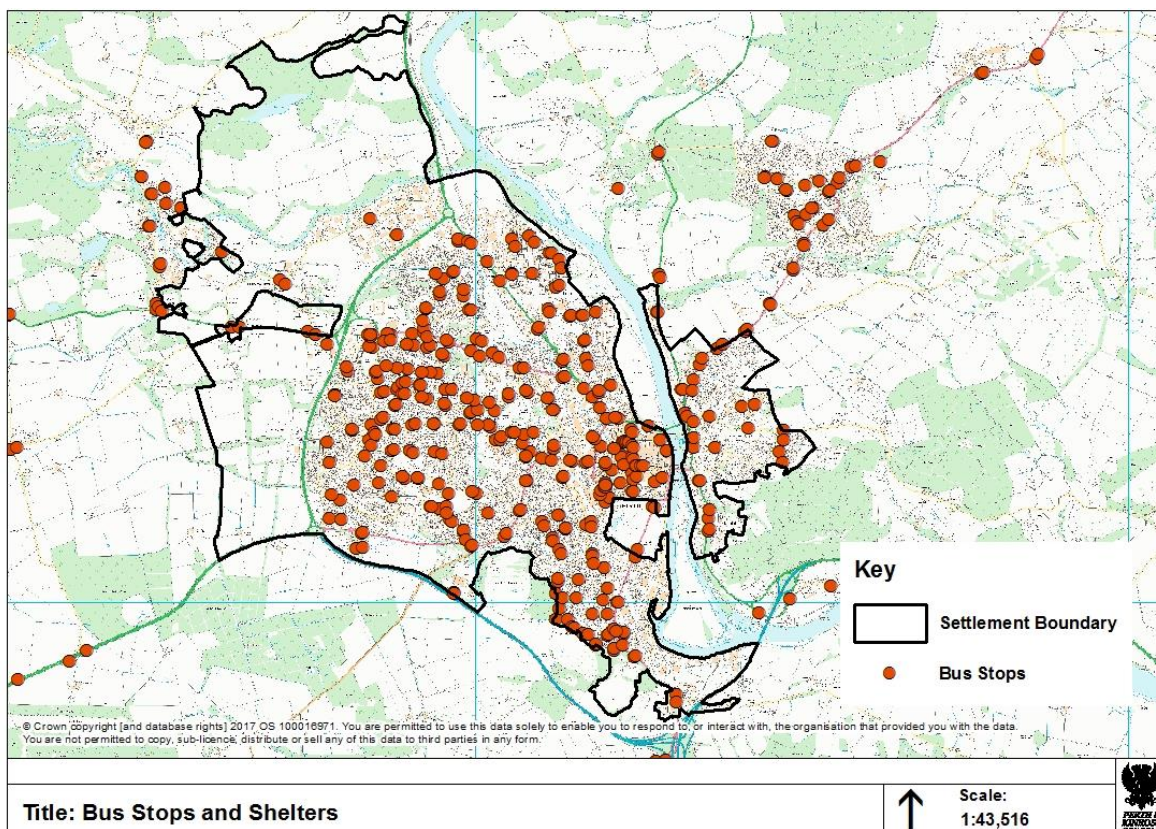
3.2 Cycling

Perth is part of the National Cycle Network, with routes towards Dundee, Pitlochry and Kinross. Besides the national cycle routes, The Core Path Network provides accessibility across the settlement and to the wider area. The Proposed Plan requires new development to provide infrastructure for cycling, including storage and parking where appropriate. There are also a range of dedicated cycle lanes across the city road network including advanced stop lines at signalised junctions.

3.3 Public Transport

Perth city has become an important centre for the road and railway networks, and so there are excellent transport connections to most places in Scotland by bus. There are direct rail services to Dundee, Stirling, Glasgow, Inverness and Edinburgh. There is a frequent bus service, which runs to the Perth Core Villages and also to other areas within

Perth City. Mill Street and South Street are the key City Centre hubs for public transport and the Main Bus Station and Train Station are located next to each other approximately 10 minute walk away from the centre.

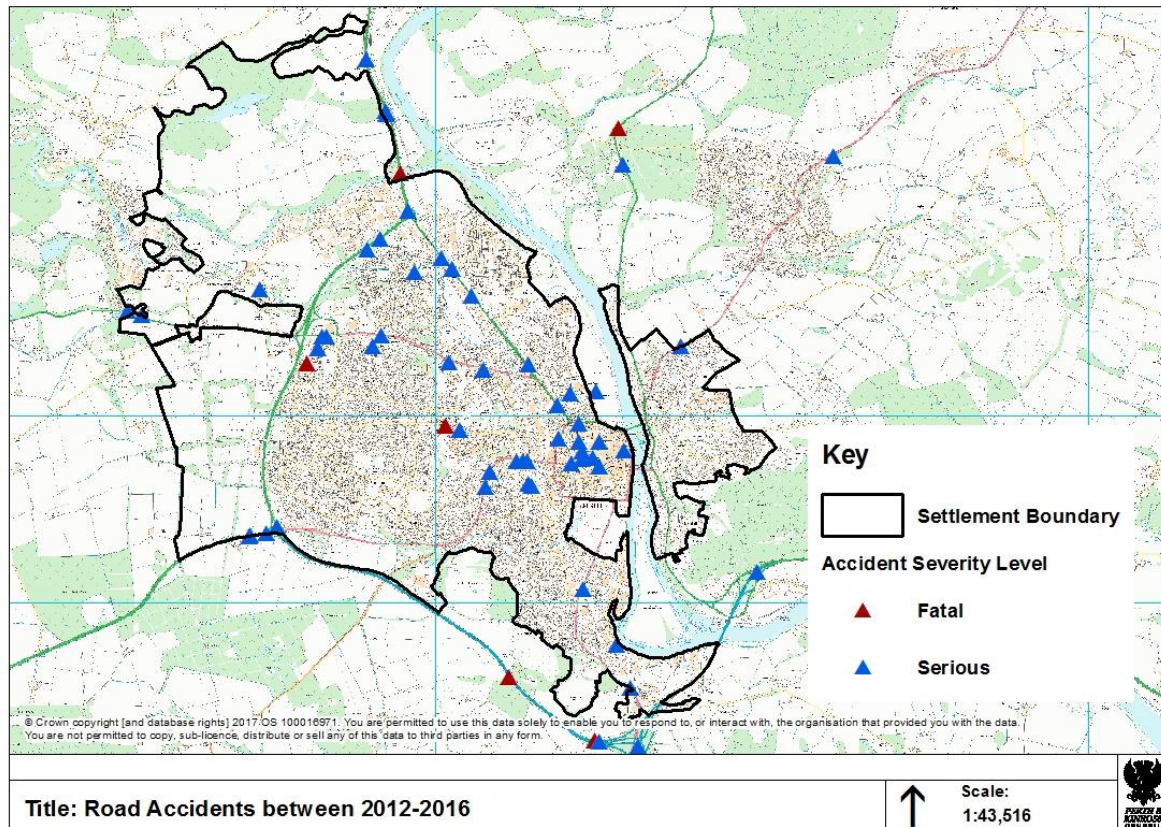


3.5 Road Capacity

There has been a traffic model created for Perth City (S-Paramics micro-simulation model). This shows that there are significant traffic hotspots around Perth such as Broxden, Bridgend, Inveralmond and the Crieff Road junction with the A9. The model showed that the current network could only accommodate 30% of the LDP and committed development in the peak hours before there would be total gridlock. The modelling forms the basis of the case for the Cross Tay Link Road (CTRL). Added to this, the whole of Perth is an AQMA with the Atholl Street corridor being the worst area in Perth in terms of poor air quality.

To release capacity for growth, and address air quality issues the Council has put together a package of transport measures which includes: Broxden and Inveralmond grade improvements, the Cross Tay Link Road project, and a £25M package of active travel and public transport measures. This package is fully integrated into the Development Plan which guides the strategic growth of Perth. Fulfilment of these measures will ensure the sustainable economic growth of Perth. Likewise investment in other service infrastructure will be needed alongside development.

3.6. Road Safety



The map above shows fatal and serious accidents in Perth. There have been 46 accidents between 2012 and 2016 out of which 2 were fatal. Trends show a decrease in the number of accidents over this time period with fourteen accidents in 2012 and five in 2016.

3.7 Parking Provision

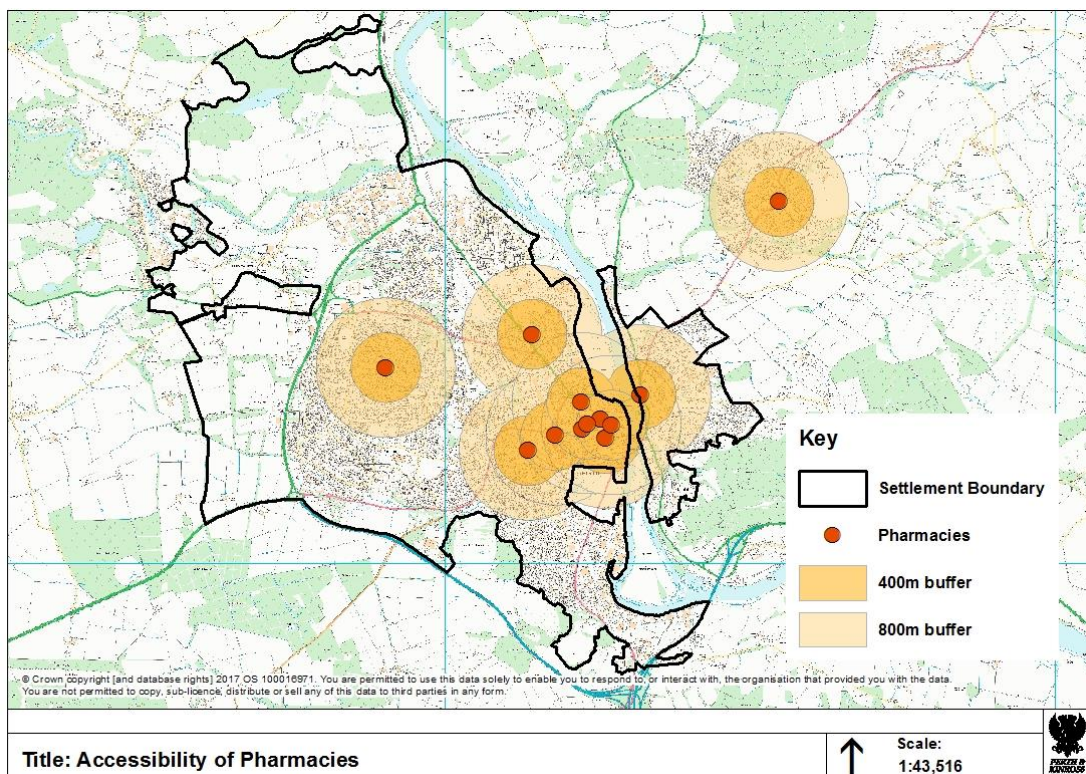
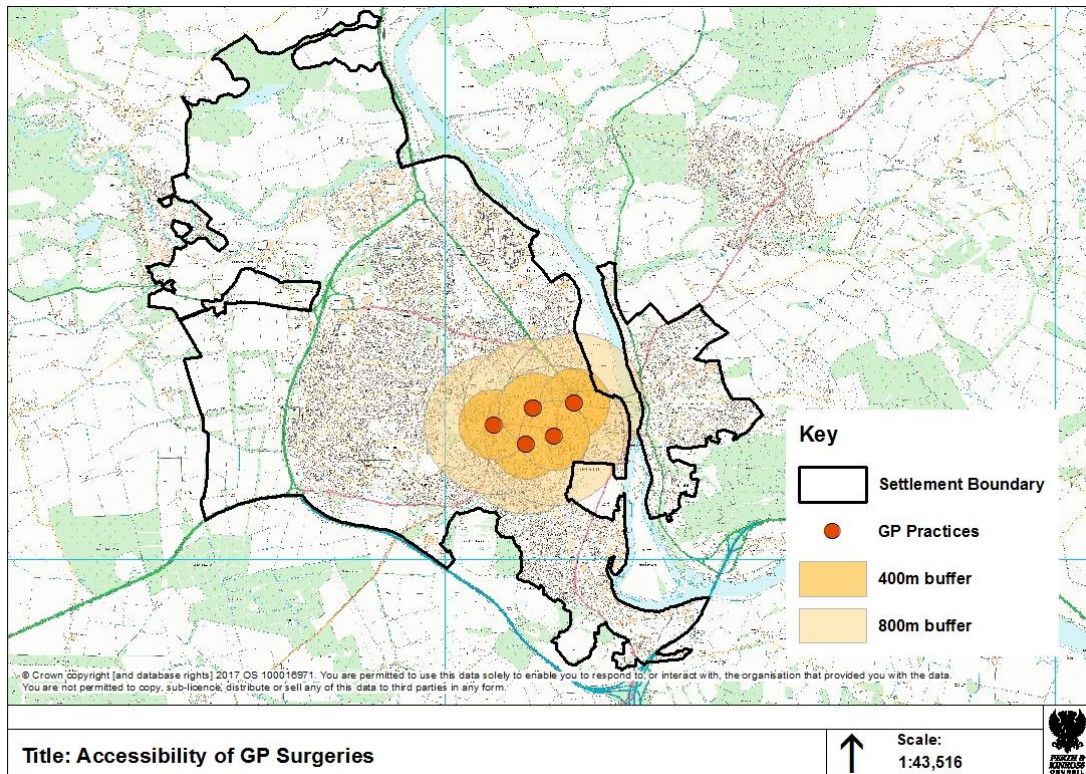
There are 17 council run car parks, mostly all Pay and Display. A parking survey was conducted in Autumn 2017 and the results will be available soon. Perth also has park and ride sites at Scone and Broxden. The Broxden Park & Ride has bus services to Perth City Centre as well as intercity coach travel for longer distance journeys. Broxden also has extensive electric vehicle charging facilities.

4. Health

For a community to thrive it is essential that they have access to healthcare. The Council works closely with partners in the NHS to ensure that this can be delivered and that consideration is given to the impact of future development on existing services.

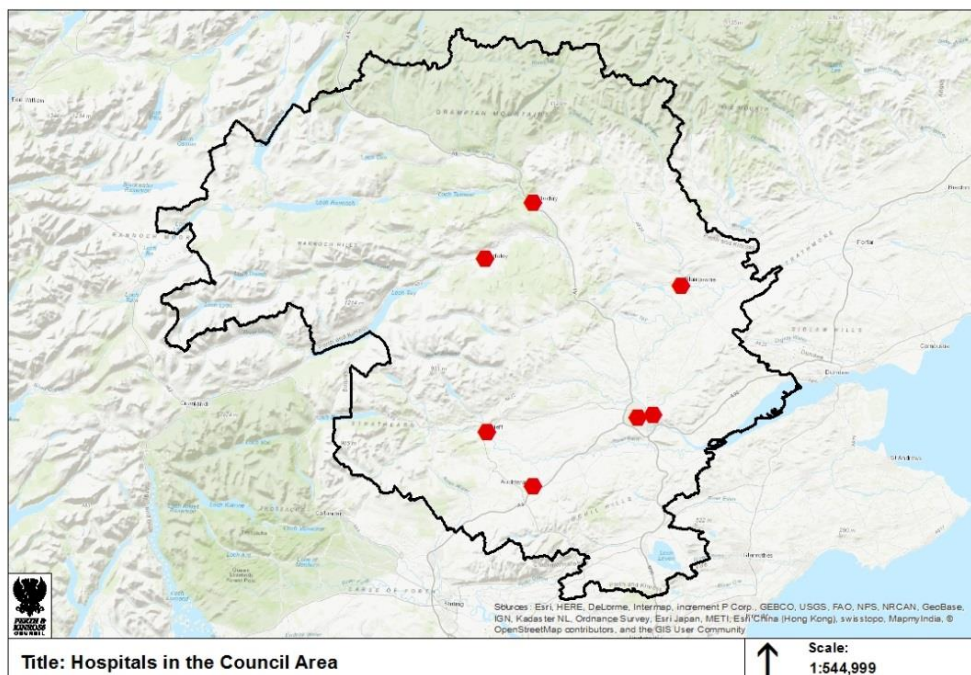
Within Perth there are **twelve pharmacies as well as seven GP surgeries**. There are no plans for any practice to develop, re-locate or close. However, there are implications from demographic change. There is capacity within premises, but there is a national shortage of GPs. NHS Tayside has indicated a Health/Social Care Hub is required within Bertha Park and one would also be required within the southern Perth West neighbourhood centre if the wider Perth West site were to go ahead. NHS Tayside requested land measuring 5,000m² in order to potentially create Health/Social Care Hubs at each development. These hubs will provide health care services as well as other services supplied by the Community Planning Partnership. Both will also service the new Almond Valley village and provide additional support for increased housing in Luncarty. Developers will be expected to enter into an agreement to transfer at nil value the required serviced site for the Health/Social Care Hub either through a Section

75 agreement or a separate legal agreement with the Community Planning Partnership. The map below highlights access to existing facilities.



The maps show the walking distance to pharmacies & GP surgeries. The survey shows that **62%** of households are within a 10-15 minute and 48% are within a 5-7 minute radius from pharmacies. In case of GPs, **33%** of households are within 10-15 minute radius and 15% are within a 5-7 minute radius from surgeries. Those living further away from these facilities may access it by public transport as there is a frequent bus service running through the settlement.

There are also currently twelve dentists within Perth providing NHS services. However it is important to note that dentists operate a private business and are out with the control of the NHS.



There are two hospitals located in Perth, Perth Royal Infirmary and the specialist unit at Murray Royal Hospital. These facilities serve the town as well as patients with serious health issues from the rest of the council area.

5. Education

In order to support future growth in a settlement it is essential to have sufficient education provision. Through the School Estates Plan the Council seeks to accommodate this future growth taking account of population projections and future housing levels through the Local Development Plan. The Council has adopted Supplementary Planning Guidance on Developer Contributions which secures contributions from new residential development within the catchments of primary schools with a projected capacity constraint. The guidance provides an annual update relating to the likely impact of future identified housing on the school estate.

The school estate serving Perth has limited capacity to support further development. Within the strategic expansion areas new primary schools will be required to meet future need. The long term nature of these developments means that a holistic approach to education provision is required across all of the developments to ensure sufficient capacity is available when required. The timescale for the delivery of education provision within the strategic sites will take account of which sites progress first and the build rate. Sufficient land and financial contributions will be required to ensure the necessary school infrastructure is provided when necessary.

Within Bertha Park construction has started on a new Secondary School which will serve the long-term requirements of the Perth area. The school is scheduled to open in August 2019.

Land has also been secured in Bertha Park for the delivery of a new Primary school as well as a financial contribution from the development towards its delivery.

Within Almond Valley land has been secured for the delivery of a new primary school as well as a financial contribution towards its delivery.

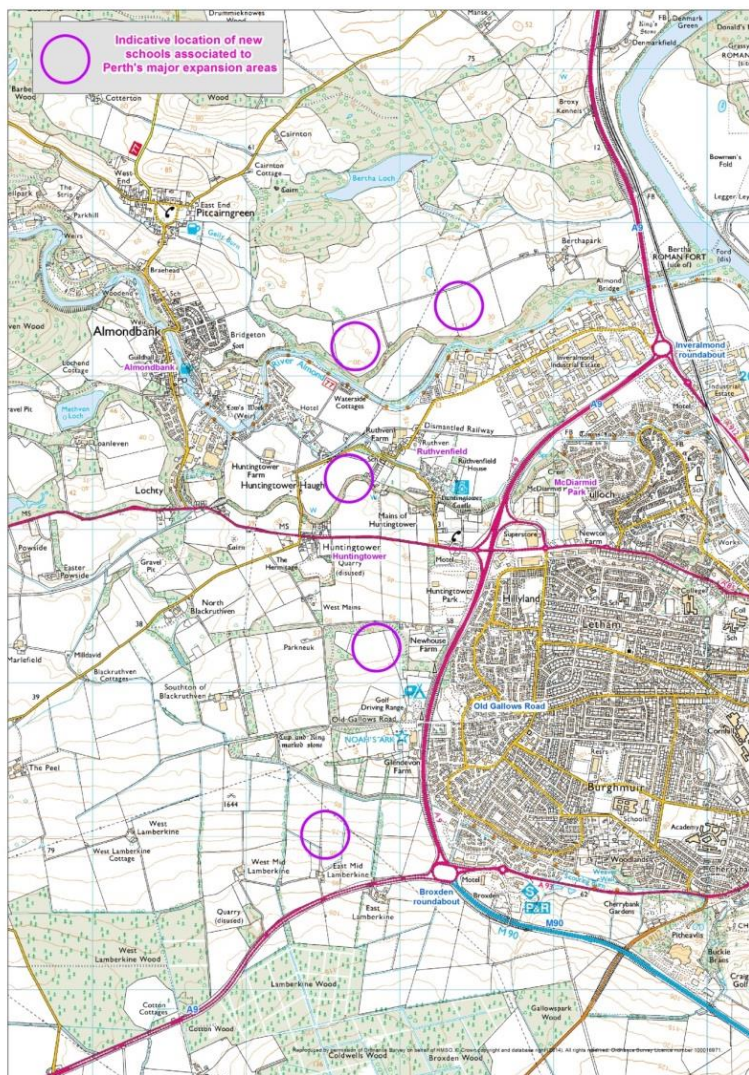
The scale of the proposed development at H70 Perth West will require to the provision of additional primary school requirement but the final requirement depends on the level of development. Primary school provision may be needed at the allocated H70 Perth West site but should the wider Perth West site come forward it is anticipated that there would be a need for two primary schools to serve this area. Depending on the timescales it may be appropriate to consider the requirements for the whole Perth West site together.

The table and map below gives an indication of the number and location of schools which may be needed in each site. This information is based on the assumption that a single stream school accommodates 217 pupils or 804 houses, and a double stream school accommodates 434 pupils or 1,608 houses both based on the pupil product ratio of 0.27.

Table 2: Potential number and location of new schools

Site	Number of Houses	Secondary School	Primary School
Bertha Park (H7)	3,000 +	1	1 double stream (may increase)
Perth West (H70)	550	0	1 single stream
OR			OR
Perth West (unallocated site plus H70)	3,200	0	Increase H70 to double stream and provide one additional double stream
Almond Valley (H73)	1,500	0	1 double stream

Map 1: Indicative locations of new schools



6. Retail and Employment

Both retail and employment are significant aspects of the development of settlements. Perth and Kinross Council completes an annual Employment Land Audit which provides information on how much land there is available and establishes whether or not there is a need to provide more employment land to facilitate economic growth in the area.

This report shows that there is a total of 114.65 hectares of employment land within Perth out of which 10.09 ha is immediately available and a 104.56 ha is marketable with minor constraints. Over the past five years the take-up has been 4 ha. There is also employment land allocated through opportunity sites for Perth city however most do not have a confirmed size. The take up of allocated land will be closely monitored to establish whether or not there is a need for further allocations in the area.

Perth City Centre is an important sub-regional centre for retailing and the adopted Local Development Plan seeks to protect and enhance its vitality and viability. The plan sets out a hierarchy with a geographically tight prime retail core focused around the High Street, St John Street, George Street, Mill Street, Scot Street and South Street. The remainder of the city is defined by a policy framework which encourages an appropriate mix of uses with particular encouragement to small specialist retail. Identification of other retail centres in Perth area also encouraged, and the LDP supports improving linkages between the city centre, the retail park and retail developments.

To measure Retail Capacity within Perth and Kinross a Retail Capacity Study was undertaken in 2016. This study concluded that whilst Perth City Centre has a strong distinctive independent retail offer, there is still scope for improvement in today's competitive market.

The floorspace in the City centre is occupied mostly by services and comparison retailers and vacancy rate is around the average at 11.8%. Respondents of the survey highlighted the closeness and the range of cafes & restaurants as positives and noted the range of shops and the number of vacant units as negatives. 54% of respondents travel to the city centre by car which suggests that public transport connections to the centre should improve.

There is forecast spare retail capacity in Perth to support significant additions to the retail offer. The main issues include; maintaining and improving the town centre environment, promoting the profile of the City Centre as a destination, encouraging development which support additional quality retailing, and encouraging further development of the evening economy.

7. Energy and Water

It is important that all new and existing development can be served by key infrastructure including electricity, gas and water treatment works. The analysis below suggests that the existing community is well served but that there may be a need for improvements to facilitate future growth.

7.1 Energy & Renewables

The LDP requires all of the strategic sites to investigate the provision of a district heating system and combined heat and power infrastructure utilising renewable resources. The Council is seeking funding to contribute to feasibility work to develop a district heat network in association with these key development sites and a working group has been established to progress this. Developers and stakeholders are encouraged to engage in this process. New Supplementary Guidance on Renewable and Low Carbon Energy will support the delivery of a diverse range of electricity generation from renewable energy technologies, including the expansion of renewable energy generation capacity, and the development of heat networks.

Should a district heating system not be forthcoming in the short term, developers at each site are encouraged to consider the provision of localised heat networks which are capable of connecting into a future larger district-wide network, or alternatively to include infrastructure to enable connection at a later date.

7.2 Water Network Capacity

There is sufficient capacity at the water works in Perth. Water Impact Assessments may need to be carried out at some potential development sites. Likewise Full Drainage Impact Assessment will need to be carried out at development sites.

For the Bertha Park site, Scottish Water have indicated that network investigation is required for both water and wastewater and they are liaising with the developer on this. Similarly at Almond Valley, network investigations and growth will be required to accommodate the development and early contact with Scottish Water is recommended. At Perth West suitable connection point(s) within the Scottish Water system will be identified following detailed water impact assessment work. Given the size and nature of the development it is likely network and also waste water treatment work will be required. A full network model and Water Impact Assessment is required to assess impact and possible ways to serve the development. A Drainage Impact Assessment study will also be required in order to assess the impacts of the development on the existing sewer network. It is anticipated that upgrades to the existing network and treatment works will be required as a result of the proposed development.

Whilst not a direct requirement of the LDP the co-ordination between sites of other key infrastructure such as water supply and waste-water treatment may offer economies of scale and is encouraged where practicable.

7.3 Is there opportunity to connect to the national grid?

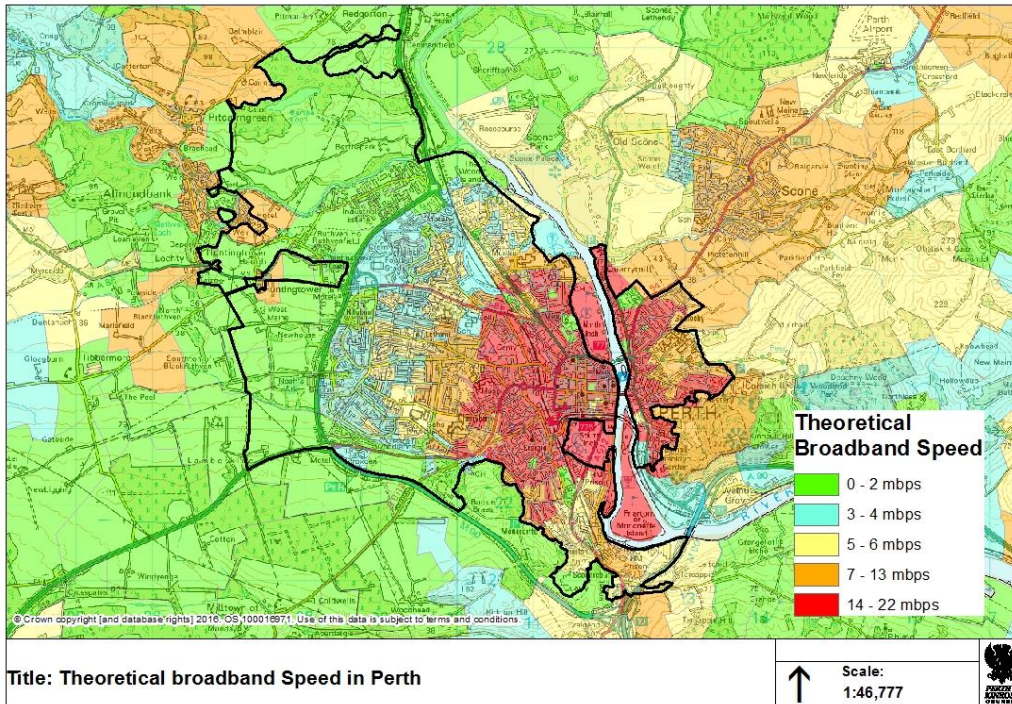
Properties within Perth are connected to the national grid.

7.4 Is the opportunity to connect to gas supply?

Most within Perth City Centre are connected to a gas supply.

7.5 Access to High Speed Broadband

Fibre broadband has been deployed within Perth. The vast majority of premises will be covered, although not necessarily all (Digital Scotland, Scottish Government). The map shows that broad band speed varies across the settlement.



Conclusion

The National Records for Scotland bi-annual population projections for Perth and Kinross reaffirms the likelihood that it will remain one of the fastest growing areas in Scotland. This offers great opportunity and illustrates the strength of Perth and Kinross in attracting people, jobs and investment. This strength comes partly from the quality of Perth as a place to live, work, and visit. Furthermore significant improvements are planned to the public realm (streetscape, lighting, and railway station improvements), leisure (PH20), and cultural offerings (theatre, and city hall refurbishment for visual arts) which should further enhance the profile of the town.

This growth envisaged in the TAYplan and the Proposed Plan poses a serious challenge for the future and can only happen if the region has the tools to facilitate growth. The biggest single constraint facing Perth is the capacity of the roads infrastructure in and around Perth. Not only is congestion becoming a problem but increased pollution levels in several areas of the city have led to the identification of Perth as an Air Quality Management Area. Improvements are vital to facilitate this growth and address air quality issues. The Council has significant forward funding in place, and proportional developer's contributions will help recoup some of the cost of these transport projects. However the sustainable economic growth of Perth will be constrained without some national government assistance to help bring these vital infrastructure projects over the line.

There are limited development opportunities within the city and so the majority of growth is planned for Perth is to the west of the A9. The A9 is a significant physical barrier so the vehicular and active travel connections between planned sustainable communities at West /North West Perth and West Perth will be carefully addressed. These communities all have attractive landscape settings and will provide a high quality of life. The scale of these new communities and their distance from the city centre means that they will be fairly self-sufficient in terms of meeting day to day needs for education, neighbourhood facilities and open space functions whilst Perth City Centre remains important for its wider leisure, cultural and retail offerings.

SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Administrative centre with specialist services and employment opportunities • Cultural centre receiving significant investments • Commercial centre with a particularly strong independent retail offer • Its heritage and built environment – especially Perth Centre and Kinnoull conservation areas • Exceptional framing of the City Centre by North and South Inch parklands and the River Tay • High quality and easy access to a range of leisure and recreational facilities • Good core path network and extensive green and blue infrastructure • Opportunities for employment growth and availability of development ready serviced land • Perth College; University of the Highlands • National hub on the national rail and bus network • Good small city living with great access to outdoor recreation • Being part of a successful city region with Dundee 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Limited capacity in the existing road network to accommodate anticipated growth • Limited development opportunities within the existing built up area • Air Quality issues • Active travel distance of city centre to major new strategic development areas (SDAs) to west of A9 • Connections to the major new sustainable communities at West /North West Perth west of the A9 (physical barrier of the A9) • Limited capacity in the existing school estate to accommodate growth • Maintenance concern from quantity of listed and important buildings within conservation areas • Quality of existing bus and railway stations
<p>Opportunities</p> <ul style="list-style-type: none"> • Investment in infrastructure improvements alongside the growth of Perth • Investment in the Cross Tay Link road (CTRL) supported by a package of City Enhancements to improve the wider public transport, walking and cycling networks as well as air quality • Major population growth provides opportunities for support of and expansion of services and facilities and leisure options • New educational and health facilities can support future population growth • Potential for new sustainable communities at West /North West Perth • Improve active travel connections from Perth to the countryside beyond the A9 and to the new sustainable communities at West /North West Perth • Provide bus network connections from the new sustainable communities at West /North West Perth • Tourism and conference centre potential – including new hotel development • Increased amenities/services/activity associated to the riverside promenade • Improve amenity/function of the railway and bus stations which are important national hubs 	<p>Threats</p> <ul style="list-style-type: none"> • Limited existing capacity in infrastructure so will require significant investment to fulfil opportunities • Some reliance on as yet unsecured national funding to improve capacity in infrastructure • Reliance on large new sustainable communities at West /North West Perth to deliver the majority of the development • Demographic age profile changes and need to meet future demands