

LCA5: CARDONALD, STAGE 1

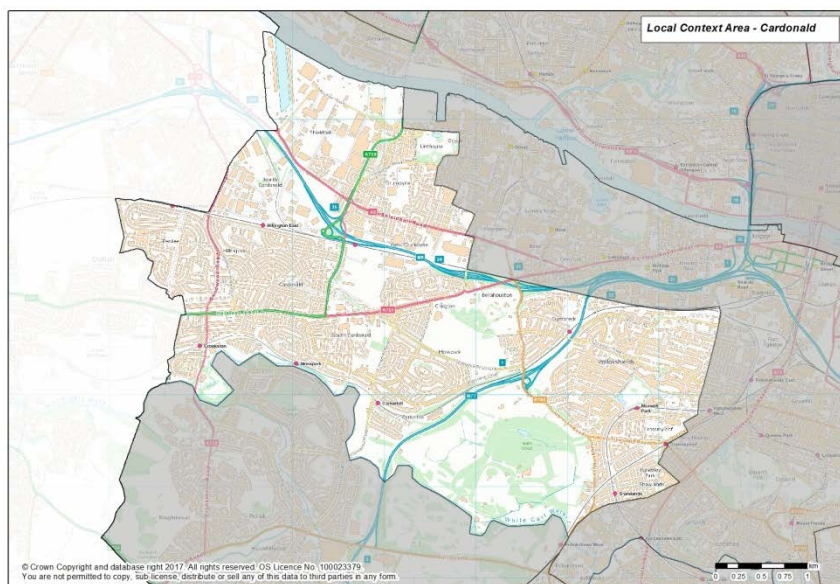
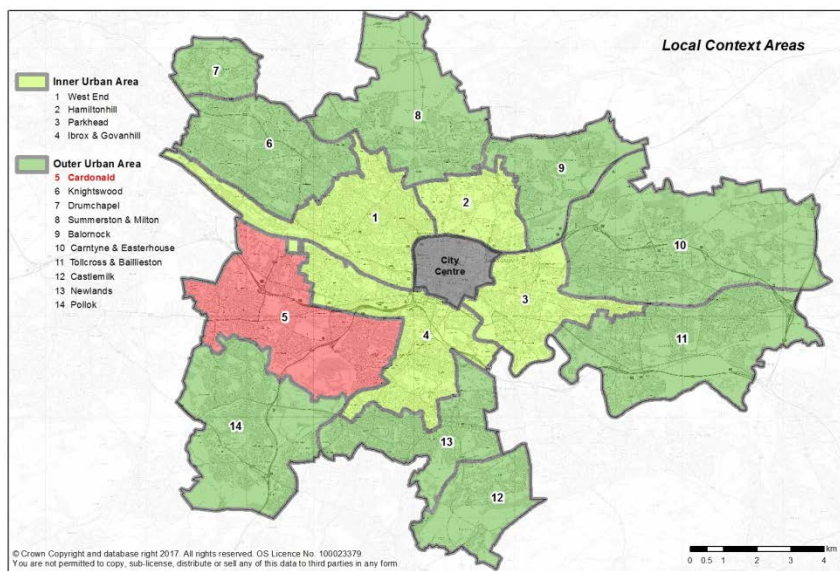
Glasgow City Development Plan 2017

Glasgow Open Space Strategy 2018



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1 Introduction

1.1 Cardonald is one of 15 Local Context Analysis (LCA) areas that have been identified to help inform the Council's understanding of open space and green network issues at the local level and inform the development of the Council's Open Space Strategy:

- a City Centre LCA area;
- 4 LCA areas in the higher density "Inner Urban Area"; and
- 10 LCA areas in the lower density "Outer Urban Area".

1.2 The LCA is being undertaken in two stages:

The **Stage 1 LCA** provides an initial analysis of the amount, distribution and quality of open space in this area, together with other important characteristics. It identifies the key matters that the Council thinks should be addressed to improve access to, and the quality of, open space in order to create a better place for people and nature. **Consultation on this LCA is your opportunity to inform the Council of the open space issues that you think are important to your local area.** It is part of a wider engagement on the City's draft Open Space Strategy, which is also being made available for consultation. Comments on either should be made via the [Glasgow Consultation Hub](#). Figure 1 sets out the relationship between the OSS, Stage 1 LCA, the City Development Plan and other documents.

The **Stage 2 LCA** process will build on the Stage 1 analysis and the public response to it. It will draw on work and budgets of services across the council, and of council partners, to ensure a coherent approach to investment and try to ensure new investment delivers on as many of the City's green network and community ambitions as possible. The process is being funded through the

EU Horizon 2020 Connecting Nature project. The Stage 2 LCAs will bring forward a “green network masterplan” for each area and for the City, informed by consideration of **current and future need** for open space in each area.

1.3 The Stage 2 LCA process will clarify the future role of the City’s open spaces. In particular, it is likely to mean:

- A. **the retention of many open spaces for their existing purpose** – it is anticipated that many existing open spaces will continue to be used and managed for their existing purpose – eg as public park, football pitch or natural/semi-natural greenspace.
- B. **the creation of new open spaces** – eg where necessary to meet gaps in accessibility to good quality, multifunctional open space of that serves the community or to meet demand for growing spaces;
- C. **the use of some open spaces for a different open space purpose** – some open spaces may require to be used differently to meet current and future needs – eg where a former playing pitch is no longer required for outdoor sport but is well-located to meet demand for growing space; and
- D. **the use of some open spaces for a non-open space purpose** – where Stage 2 LCAs have identified spaces that will not have a role in meeting current or future need, then there is an opportunity to release them for development, with the potential to free-up resources for investment in the City’s other open spaces.

1.4 This LCA analyses the current extent and quality of the open space and green network in Cardonald in the context of the draft Open Space Strategy’s 3 key themes of A Liveable Glasgow, A Healthy Glasgow and A Resilient Glasgow:

Glasgow’s Vision for Open Space:

By 2050, there will be network of good quality, well-distributed, multi-functional open spaces, and connecting infrastructure, that contributes positively to :

- *Outcome 1:* the City’s **LIVEABILITY**, increasing its attractiveness as a place in which to live, work, study and invest;
- *Outcome 2:* the **HEALTH AND WELLBEING** of the City’s human population and of its flora and fauna; and
- *Outcome 3:* the long term **RESILIENCE** of the City in relation to the threats, and potential opportunities, arising from climate change and other external factors such as reducing budgets.

Communities will have access to good quality, multi-functional open spaces, that are used by all sectors of society, within a short walk of the home and to a wider, better integrated, network of green, blue (water) and grey (civic) spaces that provide multiple benefits for people and the environment.

The value of Glasgow’s Open Spaces in helping address many of the critical issues facing the City will be widely understood and reflected in the decisions made by the Council and its partners.

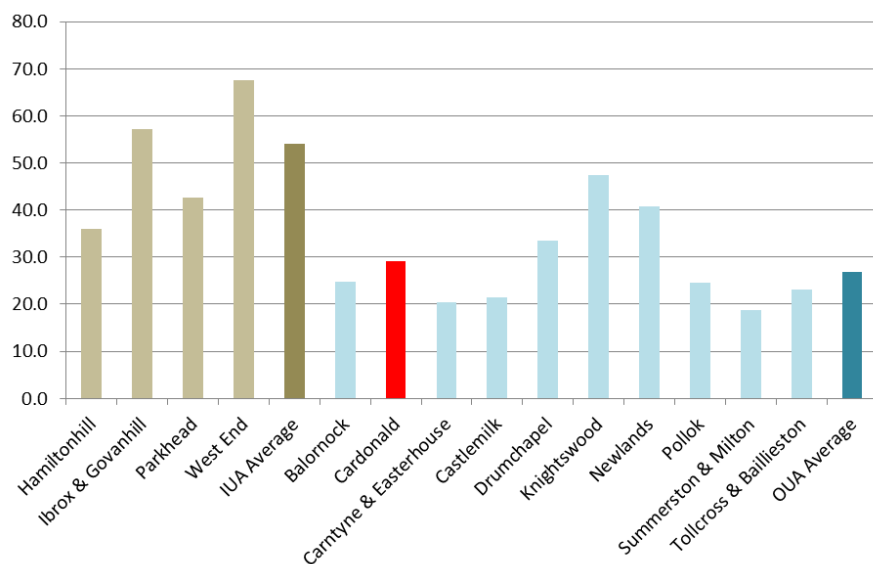
Figure 1: Suite of Open Space Documents



2 The LCA Area

2.1 The LCA comprises of the communities of Linthouse, Drumoyne, Cardonald, Craigton, Penilee, Hillington, Mossbank, Corkerhill, Bellahouston, Dumbreck, and parts of Crookston, Pollokshields, Shawlands and Crossmyloof. There are a number of conservation areas, including parts of the Linthouse, Pollok Park and East Pollokshields CAs and the entirety of the West Pollokshields, Walmer Crescent, Dumbreck and Hazelwood CAs.

Figure 2: Population Density – People per Hectare

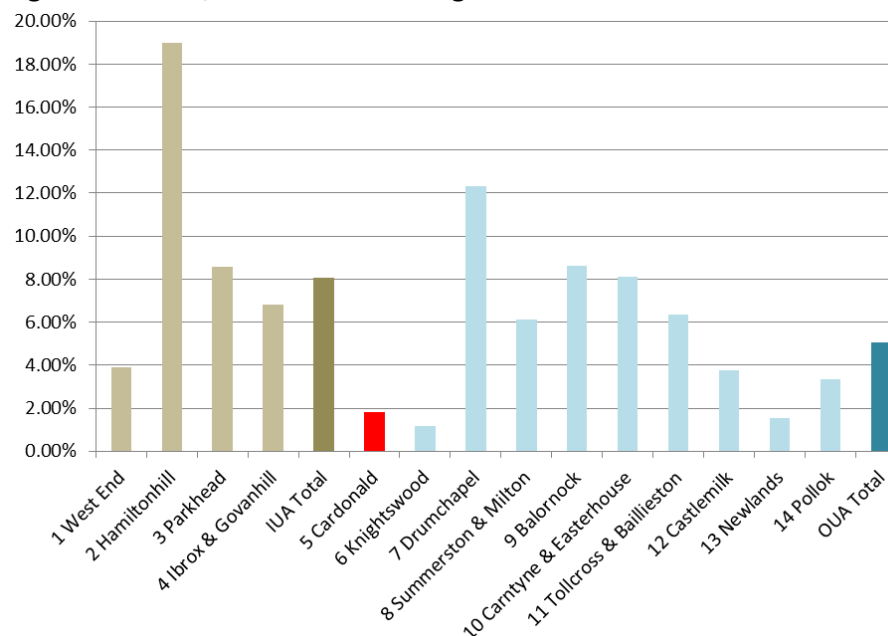


2.2 The LCA area falls within the Outer Urban Area. Much of the housing in the area is 20th century former council stock. In the west of the LCA area, particularly in Drumoyne, Penilee, Cardonald and Mossbank, this is in the form of relatively low density semi-detached, terraced and four in a block homes.

Similarly low-density, owner-occupied housing is found in Crookston, parts of Cardonald and Crossmyloof. Larger owner occupied sandstone villas can be found in the east of the area, in West Pollokshields and Bellahouston. Tenements (both traditional and mid-20th century) can be found along the main arterial route (Paisley Road West) and in Linthouse and parts of Drumoyne. High-rise blocks are scattered throughout the area.

2.3 The LCA has a population density of 29 people to the hectare, just above the average for the Outer Urban Area. The percentage of functionally usable open space (30%), both demand-led and publicly usable, as a proportion of the Cardonald LCA's total land area, is also around the average for the Outer Urban Area.

Figure 3: Vacant/Derelict Land as %age of Total LCA Land Area



- 2.4 Less than 2% of the land area of the Cardonald LCA is vacant and/or derelict, one of the lowest figures in the City (Fig 3). This is concentrated mainly in Hillington industrial Estate, with comparatively little in the other parts of Cardonald.
- 2.5 The western half of the Cardonald LCA is severed by the M8, which runs east-west through the area, also proving a barrier between the area and the Ibrox/Govanhill LCA to the north east. The main Glasgow – Paisley rail line also runs through the area, on a similar alignment. Together, they can present a significant barrier to movement, particularly in the north east of the area eg between Helen Street and Berryknowes Road. Similarly, the M77, which cuts through the south eastern part of the Cardonald LCA, can also present a significant barrier to movement over some stretches, particularly in terms of access to Pollok Park from the communities on the western side of the Motorway. The Paisley Canal line runs alongside the motorway over much of its length and presents an additional barrier to movement, including to open space in and around the White Cart Water.
- 2.6 Many of the other roads in the area can have a similar, albeit lesser, impact. The approach roads to the Clyde tunnel that lead to the motorway are heavily trafficked and form a partial barrier to east-west movement and access to the Queen Elizabeth University Hospital from the east. Paisley Road West itself, though heavily trafficked, can be crossed safely at a large number of points along its length.
- 2.7 The Cardonald LCA contains a number of important open spaces, as shown on the [Open Space Map](#). **Bellahouston Park**, situated in the centre of the area, is a large (68 ha) public park that includes a wide variety of outdoor and indoor facilities, including: bowling greens; children's play facilities; a maze; cycle tracks; cricket and

hockey pitches; a walled garden; a large expanse of woodland and amenity grassland. In addition, it includes major visitor facilities, such as the Glasgow Ski Club (artificial slope); the House for an Art Lover; and the Bellahouston Leisure Centre and Swimming Pool. Access to the park is relatively good from the surrounding communities of Mossbank, Craigton and Bellahouston, though accessing the park from the east does mean negotiating the busy Dumbreck Road. Immediately to the south, a further small park is located on the south side of Mossbank Boulevard and **Mossbank Drive** and includes children's play facilities and amenity grassland.

- 2.8 Nearby, in the south-eastern corner of the Cardonald LCA, lies **Pollok Country Park**. The park is Glasgow's largest and its only Country Park. It contains extensive woodlands and gardens, and the White Cart Water cuts through it on an east-west alignment. National Cycle Network (NCN) Route 7 passes through the park, entering from the north and following the north bank of the White Cart into Pollok, to the west. It provides good, off-road access to the park from the Pollok LCA and, via other off-road routes, from Corkerhill in the Cardonald LCA, one of the few good walking and cycling options for negotiating the M77. The Park includes outdoor sports provision in the form of Haggs Castle golf course, Cartha RFC rugby pitches, Police Scotland's Lochinch playing fields, Craigholme School's sports complex and pitches and Glasgow Life's Nether Pollok playing fields.
- 2.9 The park is also home to the Burrell Collection, another of the City's major visitor attractions. The Category A-listed building that hosts the collection is currently closed for refurbishment and expected to reopen in 2020. In addition to a large children's play park, the park also includes orienteering and mountain biking courses.

- 2.10 **Maxwell Park** sits in the heart of Pollokshields, in the West Pollokshields Conservation Area. The park includes the Category A listed Pollokshields Burgh Hall, a children's play facility, bedding displays and amenity grassland. **Titwood Park** lies close by, slightly further to the east along Terregles Avenue. It is a small, wooded park with children's play facilities and some amenity grassland.
- 2.11 To the west of the Cardonald LCA, sitting on the north bank of the white Cart Water, **Rosshall Park** provides cultural and recreational facilities. It includes a Category B listed designed landscape including a grotto and rock-garden. The park also includes extensive areas of amenity grassland, woodland and a Frisbee golf course. It is accessible from the east side of the White Cart via a footbridge to Bonnyholm Avenue and forms part of a larger network of open spaces along both banks of the river.
- 2.12 **Elder Park** lies between Govan and Linthouse, close to the Govan shipyards and the Clyde. It sits at the heart of the Govan Conservation Area and includes a number of listed structures, including the Category A listed Elder Park Library. The park also contains a boating pond, children's play facilities and amenity grassland.
- 2.13 **Cardonald Park** lies north of the M8, between the motorway and Shieldhall Road. It consists mainly of areas of amenity grassland, mainly surrounding blaes football pitches, and is relatively lacking in other amenities.
- 2.14 **Penilee Park** lies under a line of electricity pylons in the centre of Penilee and includes amenity grassland, woodland and children's play facilities. It forms a larger open space together with an adjacent sports pitch and with two areas of adjoining amenity

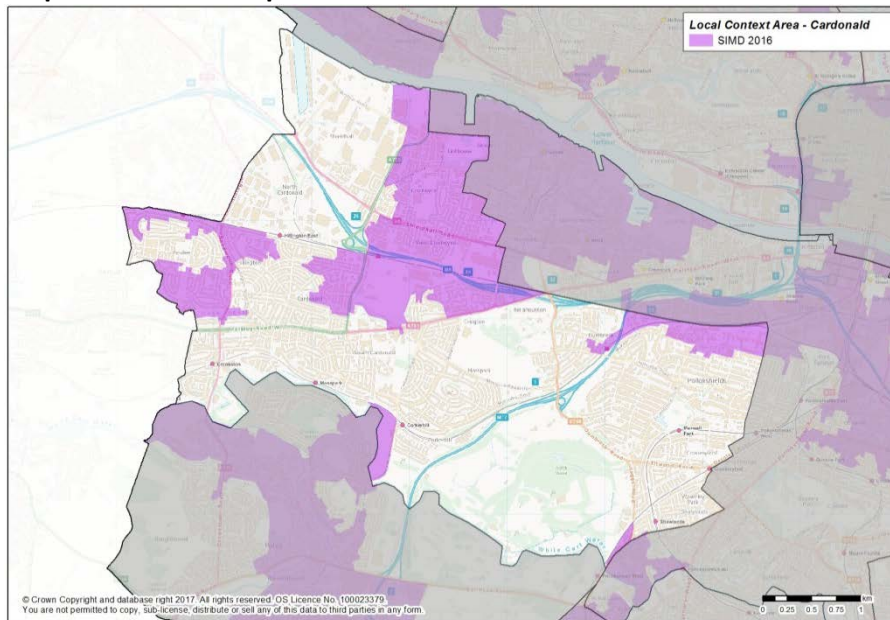
open space to the north and south. Together, these opens spaces form a long finger, under the pylons, that runs the length of Penilee, from the railway in the north to the boundary with Renfrewshire in the south. The amenity open space to the south, in particular, offers opportunities for more multi-functional use.

- 2.15 Plans have recently been brought forward to reconfigure the amenity open space to the south of the Moss Heights multi-storey flats to a new park, [Halfway Park](#). Landscape Architects, erz, have brought forward plans for the park on behalf of Southside Housing Association. The plans envisage creating easy access and good circulation on a steeply sloping site, providing public space, with natural and traditional play, sports facilities, public art and growing spaces. Urban woodland and meadow planting are also proposed. A new home zone is proposed for the area immediately in front of the south facing aspect of the flats, providing for children's play in a well-surveyed location. This will be facilitated by removing car access and parking to the rear of the flats, on an area that gets less direct sunlight.
- 2.16 Other significant open spaces in the area include: the Nethercraigs Playing Fields complex; the Dennis Donnelly Park at Corkerhill (including football pitches for Pollok United); the playing pitches at Pirie Park in Drumoyne; the sports pitches associated with Clydesdale cricket/hockey and Hutcheson's Grammar at Titwood; the sports pitches at the Bellahouston Academy School of Sport; and the extensive cemeteries at Cardonald and Craigton.

3 A Liveable Glasgow

- 3.1 Good quality, well-designed and well located open space can make the City a more attractive and pleasant place for people who currently live, work or invest in Glasgow and for people from elsewhere who are considering doing so, generating economic, environmental and societal benefits.

Map 1 – 15% most deprived datazones



- 3.2 Map 1 illustrates those parts of the Cardonald LCA that the Scottish Index of Multiple Deprivation has ranked as being amongst the 15% most deprived datazones in Scotland. The datazones with the highest levels of multiple deprivation are concentrated in the north-west of the LCA area, around Penilee

and in west Govan, including Craigton and Drumoyne. Residents of these areas are likely to be more reliant on walking and public transport to access facilities, meaning enhancing access to, and the quality of, open space in this area will be a critical consideration.

Thriving Places

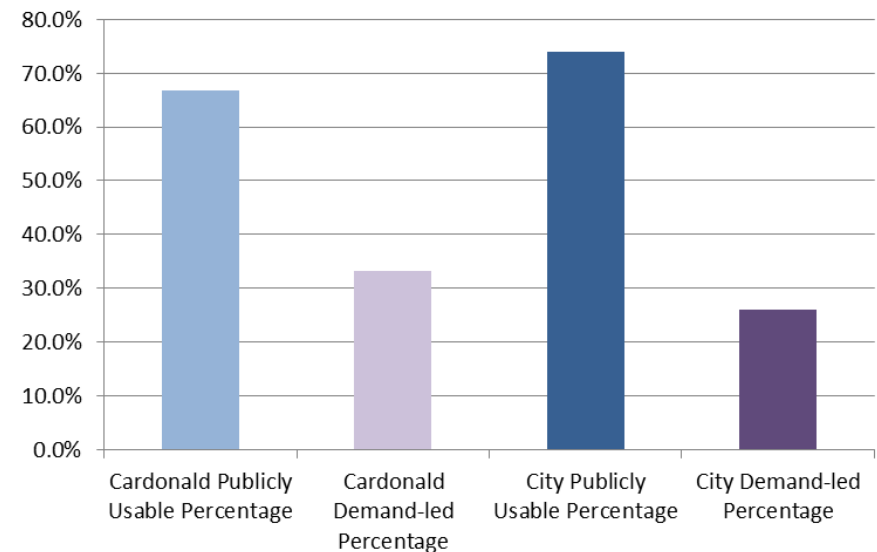
- 3.3 [Thriving Places](#) is Glasgow Community Planning Partnerships' neighbourhood approach which targets specific areas of the city with a view to making better use of existing assets and resources and creating more effective working across partners.
- 3.4 Thriving Places are neighbourhoods and communities which have been identified as needing further support to tackle complicated local issues. Across the city there are nine Thriving Places that have been identified as having consistent levels of inequality relative to other parts of the city, including when looking at child poverty, health indicators and levels of unemployment. Part of the Govan Thriving Place is in the Cardonald LCA area.
- 3.5 A [Locality Plan for Govan](#) has been produced and sets out how community groups, organisations and local services can work together to make a difference to the area. The Locality Plan for Govan indicates that people in Govan have a generally positive outlook about their local environment and green spaces, but that this varied across the area, with people in Ibrox, for example, being more critical of their local environment.

Publicly Usable and Demand-led Open Space

- 3.6 Access to well-designed and maintained open spaces is vital to improving people's quality of life and encouraging more active lifestyles. Such spaces provide opportunities for formal and informal play, rest and relaxation, meeting others and to engage with nature, helping improve both physical and mental health.
- 3.7 The draft Open Space Strategy differentiates between **publicly usable** and "**demand-led**" open spaces. Publicly usable open spaces are those that the public have relatively unrestricted access to – eg public parks (where access may only be restricted at night), amenity space, natural open space, etc. Demand-led open spaces generally have more restrictions on access and use – eg allotments, sports pitches or cemeteries.
- 3.8 Using this distinction, the OSS aims to ensure that:
- there is enough good quality open space across the City to satisfy **demand** for formal sport and for growing, in particular; and
 - all homes in the City have access to a good quality **publicly usable** space of a size that can meet the needs of the residential population, particularly in relation to play, informal sport and recreation and general relaxation.
- 3.9 The breakdown between demand-led and publicly usable open space (see [open space map](#)) in the Cardonald LCA is not too dissimilar to that of the City as a whole – 33% demand-led and 67% publicly usable compared to the city average of 26% demand-led/74% publicly usable (Fig 4). The concentration of outdoor sports provision at Nethercraigs and Pollok Park in particular contribute to a higher than average demand-led

percentage. However, as with other parts of the City, many of these spaces are in private ownership and use (eg sports pitches associated with fee-paying schools, golf courses and rugby clubs) and may not be readily usable/accessible by the general population.

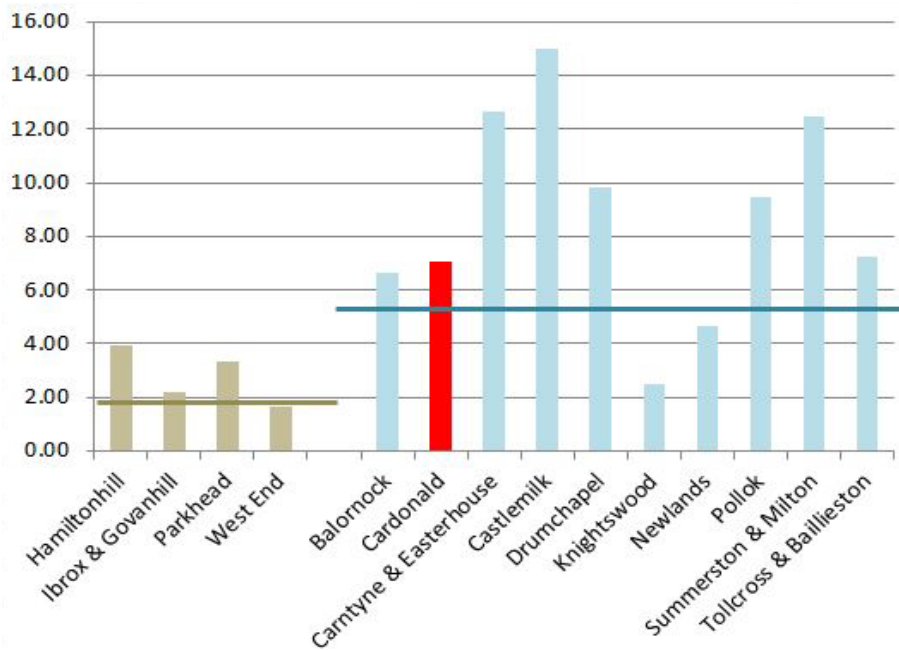
Figure 4: Open Space Breakdown by Type



- 3.10 The Council is undertaking a city-wide assessment of the supply of, and demand for, the most popular types of outdoor sports provision (including pitch sports, bowls and tennis) in conjunction with Glasgow Life and Sportscotland. This will inform a sports pitch strategy that will consider how best to meet any unmet demand in terms of quantity or quality across the City, help inform decisions on planning applications and ensure a better understanding of the area's need for outdoor sports provision. A similar assessment of demand/supply in relation to growing space

is being undertaken as part of the Council’s food-growing Strategy. It will inform how any unmet demand for food-growing can be accommodated in the area.

Figure 5: Publicly Usable Open Space per 1000 People



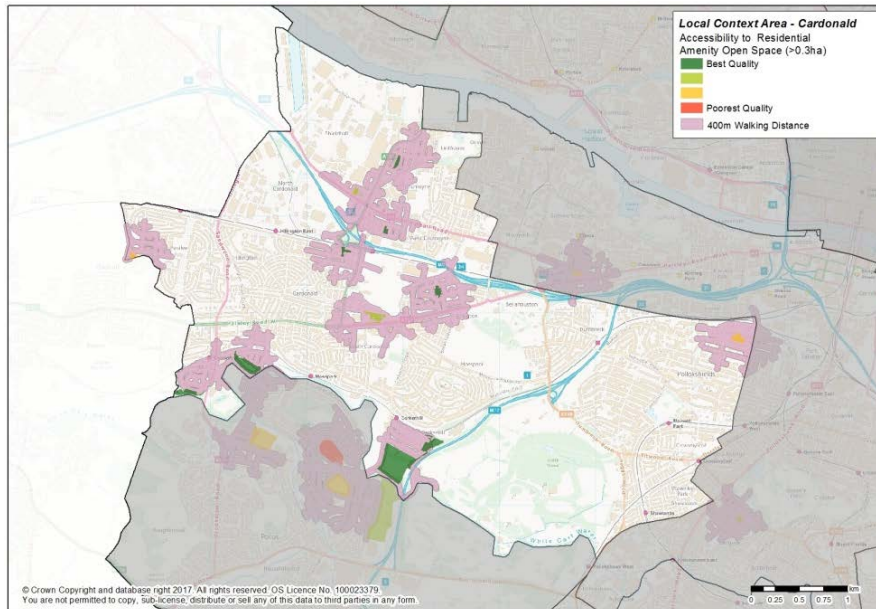
3.11 In addition, the draft OSS aims to ensure that there is a sufficient quantity of publicly usable open space in each LCA area. Figure 5 illustrates that there are currently 7ha of functionally useful, publicly usable open space per 1000 people, above the Outer Urban Area Quantity Standard (Annex 10) of 5.9 ha per 1000 people. New housing development (Map 7/Annex 7) in the area is likely to increase the population over time, and sites currently on the housing land supply currently have the potential to increase the population by around 900 (see Section 7). Even with

an increase in population, the Quantity Standard would still be comfortably met.

Quality and Accessibility

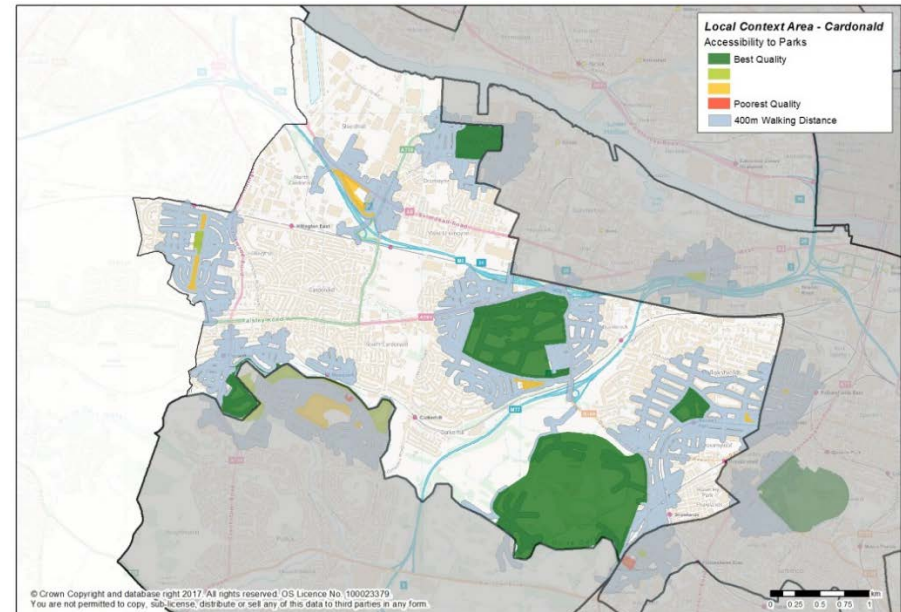
- 3.12 The draft Open Space Strategy sets out standards for **accessibility** to publicly usable open space and for the **quality** of those spaces. The Accessibility Standard states that “all homes (including purpose-built student accommodation), outwith the City Centre, should be within a 400m actual walking distance of a good quality, publicly usable open space of 0.3 ha or more”. The draft OSS refers to spaces that will be used to meet the Accessibility Standard as “Community Spaces. The Quality Standard seeks to ensure that these spaces are publicly usable, of a reasonable size and of good quality, including providing for a variety of functions, including children’s play, informal sport/recreation and relaxation.
- 3.13 A Quality Assessment of the City’s most publicly usable open spaces was undertaken between 2012 and 2014. The spaces surveyed included amenity open spaces over 0.3 ha in size and public parks and gardens. The Quality Assessment was an initial assessment of the quality of those spaces, relative to one another, and does not reflect whether they would meet the quality standard or not. Nevertheless, it is valuable in helping understand the relative quality of usable open space across Glasgow and its distribution. It should, however, be noted that some of the spaces were surveyed as much as 6 years ago and the passage of time may have seen an improvement, or deterioration, in their quality.

Map 2 – Accessibility to Residential Amenity Open Space



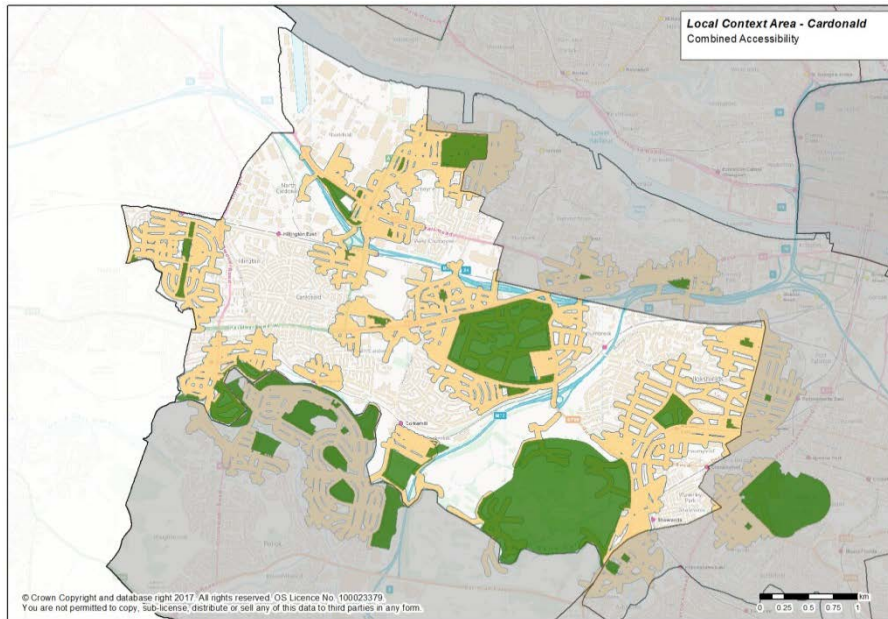
3.14 Map 2/Annex 1 shows the amenity open spaces over 0.3ha in size and their relative quality. It also shows how accessible they are from the surrounding communities, by using a network analyst tool to mark out those areas within a 400m walk, using footpaths and other pedestrian routes, of a point of entry to the space. It illustrates that most of the residential amenity spaces over 0.3ha in the area are of relatively good quality. In addition, some of the spaces appear to be of a shape that may affect their ability to meet the quality standard. The Council intends to look at these spaces in greater detail with a view to producing a map of the open spaces that are considered capable of meeting the quality standard.

Map 3 – Accessibility to Parkland



3.15 A similar analysis of access to public parks and gardens is shown on Map 3/Annex2. It illustrates those parts of Cardonald that are within a 400m walk of open spaces that are identified as public parks and gardens on the Open Space Map, or are maintained as such by the Council. The larger, formal public parks and gardens are generally of good quality and are located in the east of the area. The spaces further to the north and west are generally smaller and of poorer quality, though none of them are at the bottom end of the quality scale.

Map 4: Accessibility to potentially multifunctional open space > 0.3 ha

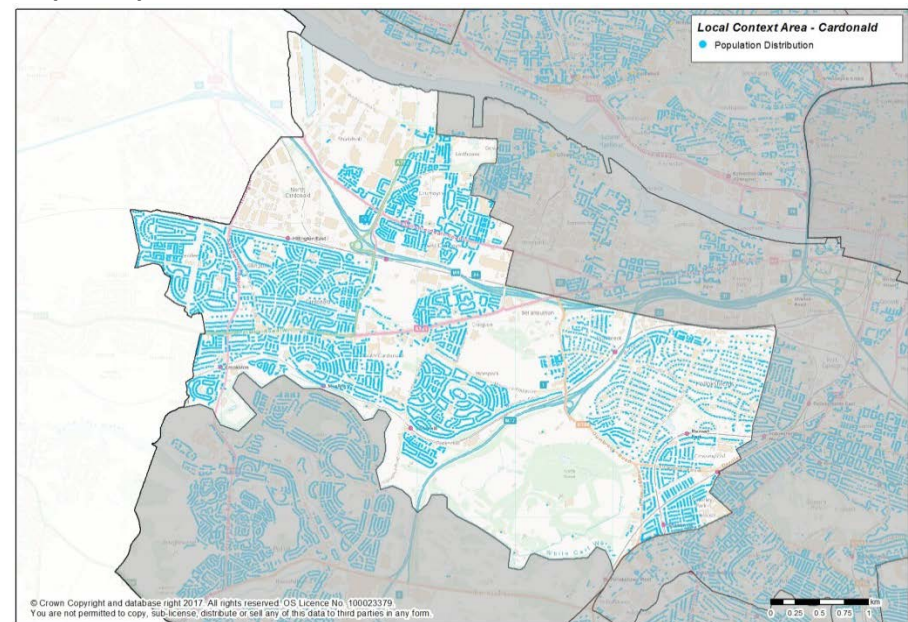


- 3.16 Map 4/Annex 3 combines both maps and shows those parts of the LCA area which currently meet the accessibility standard by falling within a 400m walk of a publicly usable, and potentially multifunctional open space of an appropriate size (over 0.3 ha).
- 3.17 These indicative deficiencies in access can be combined with a map of population distribution to identify the major gaps in accessibility from people's homes, and where the priorities might be in terms of addressing the accessibility standard set out in the draft OSS. Maps 5/6 and Annexes 4/5 illustrate population distribution and access deficiencies respectively.
- 3.18 Map 6/Annex 5 illustrates that there are a few potential gaps in access to the two key categories of publicly usable open space

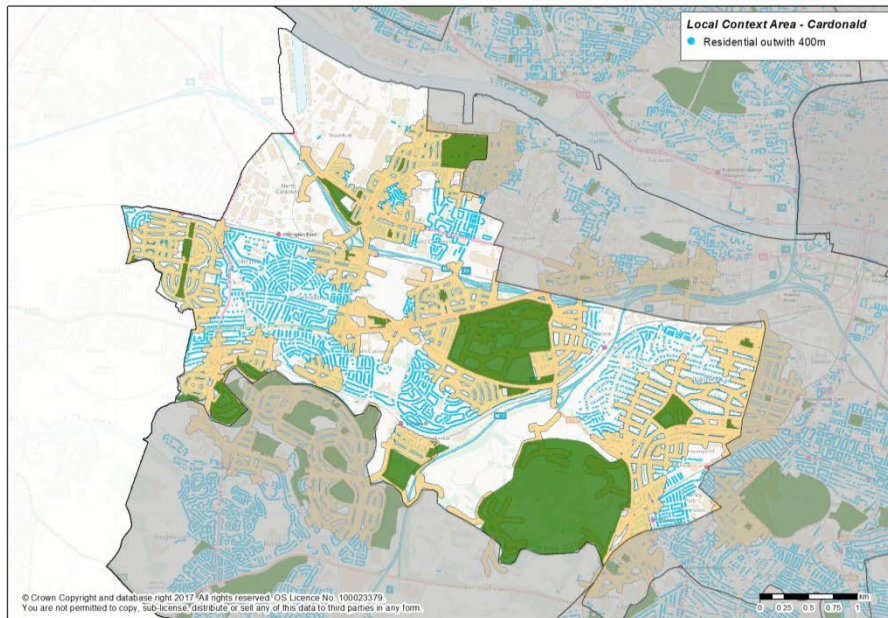
considered to have the greatest potential to meet the Quality Standard set out in SG6. The Stage 2 LCA process should consider, as a priority, how to provide enhanced access to multifunctional and publicly usable open space from the following residential areas:

- the western edges of Dumbreck and Pollokshields;
- north-western Shawlands/Crossmyloof;
- Mosspark;
- large parts of Cardonald and Hillington; and
- parts of Drumoyne, where there is a significant correlation with SIMD 15% most deprived datazones.

Map 5: Population Distribution



Map 6: Potential Accessibility Standard Deficiencies

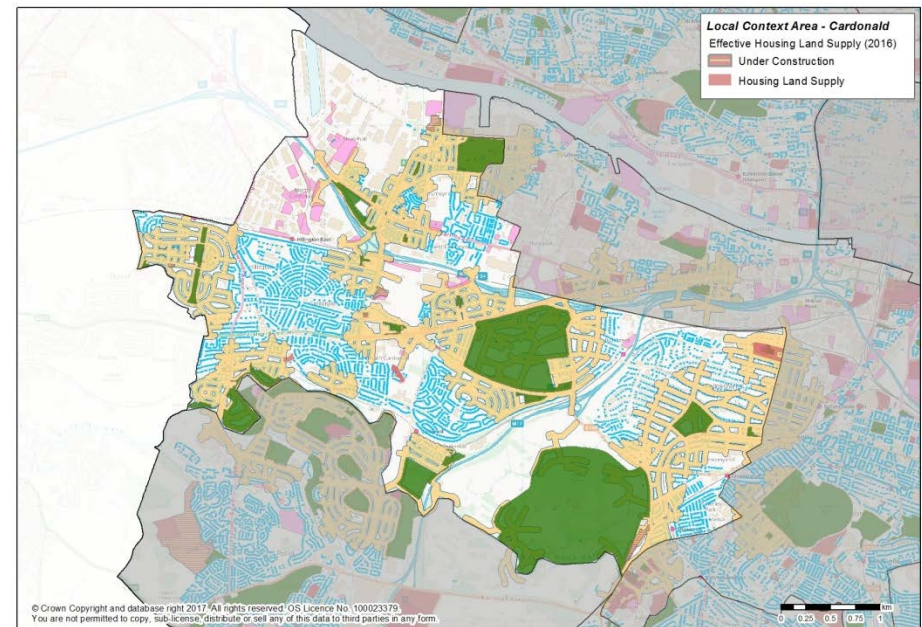


3.19 Further work has been undertaken to highlight some of the possibilities for addressing these deficiencies in accessibility. Opportunities exist in a number of forms, including:

- making use of other types of open space (ie not public parks and gardens or amenity residential) that have the potential to meet the Quality Standard;
- enhancing means of access to existing open spaces, eg shortening actual walking distances through infrastructure interventions or by creating new points of access;
- utilising open spaces that currently function separately but could meet the size and multi-functionality required by the quality standard if combined; and

- making use of the potential offered for delivering new spaces on vacant and/or derelict land or as an integral part of new housing developments to help address deficiencies – especially in this area where regeneration is proposed on a significant scale.

Map 7: Vacant and Derelict Land and Housing Sites



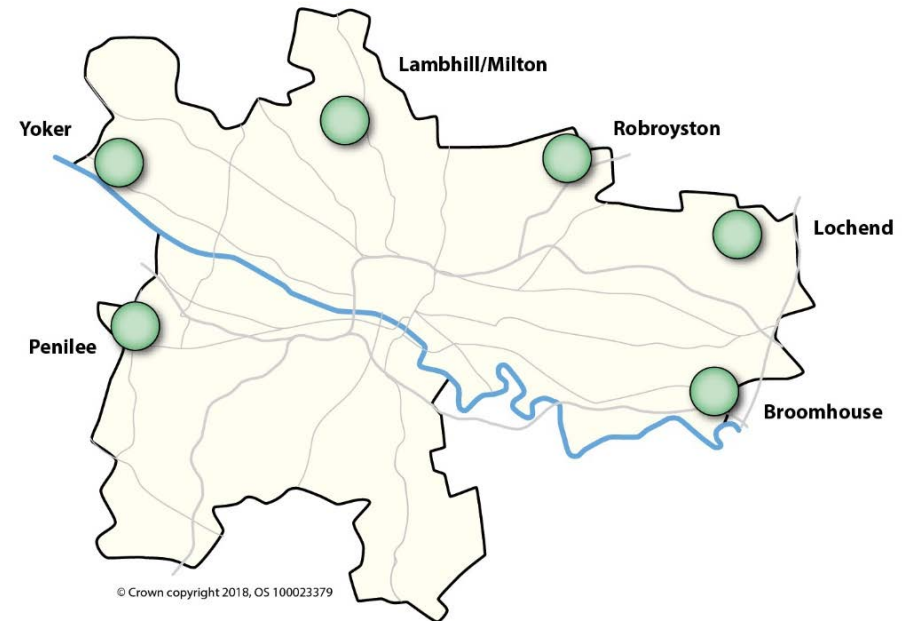
3.20 Map 7 shows vacant/derelict land (also in Annex 6) and key housing sites (shown in Annex 7) together with the accessibility analysis set out above. As highlighted in Section 2, there is relatively little vacant/derelict land in the Cardonald area (Fig 3) and what does exist is concentrated in Hillington Industrial Estate, and not in any of the areas potentially deficient in access to publicly usable, multifunctional open space. As a result, it is

unlikely that use of the vacant/derelict land resource will play a significant role in addressing access deficiencies in Cardonald. Similarly, the relatively well-established urban form of the residential parts of the area means there are few housing sites which are well placed to address access deficiencies.

- 3.21 The Stage 2 LCA process should consider other opportunities for delivering enhanced access to multifunctional publicly usable open space of an appropriate size and, where this isn't possible, what opportunities could be taken to make journeys to existing open spaces safer and more attractive.
- 3.22 Further analysis of accessibility to larger open space has been undertaken for the draft Open Space Strategy. Whilst it is recognised that access to a multifunctional, publicly usable space of 0.3 ha or more might meet “everyday” requirements, access to larger multifunctional open spaces will be desired on occasion. As such, an additional measure of accessibility to the City Parks (eg Kelvingrove) and District Parks (eg Tollcross) that serve a strategic function, and to the Local Parks that serve more discrete localities (eg Rosshall Park or Maxwell Park) has been developed. It reflects the distances people might be expected to travel to access both the larger City/District Parks (1500m or a 15-20 minute walk) and the smaller Local Parks, over 1 ha in size (800m or a 10 minute walk).
- 3.23 Map 8/Annex 8 illustrates that Penilee falls outwith these distance thresholds. The draft OSS identifies an opportunity to improve the existing open space spine that runs through central Penilee to improve connectivity between the spaces and create a linear open space of enhanced multi-functionality. The Stage 2 LCA process should consider the full range of issues associated

with using these spaces in a more space in a more cohesive way to deliver multi – functional outcomes and improve placemaking.

Map 8: Priorities for Access to Larger Open Spaces

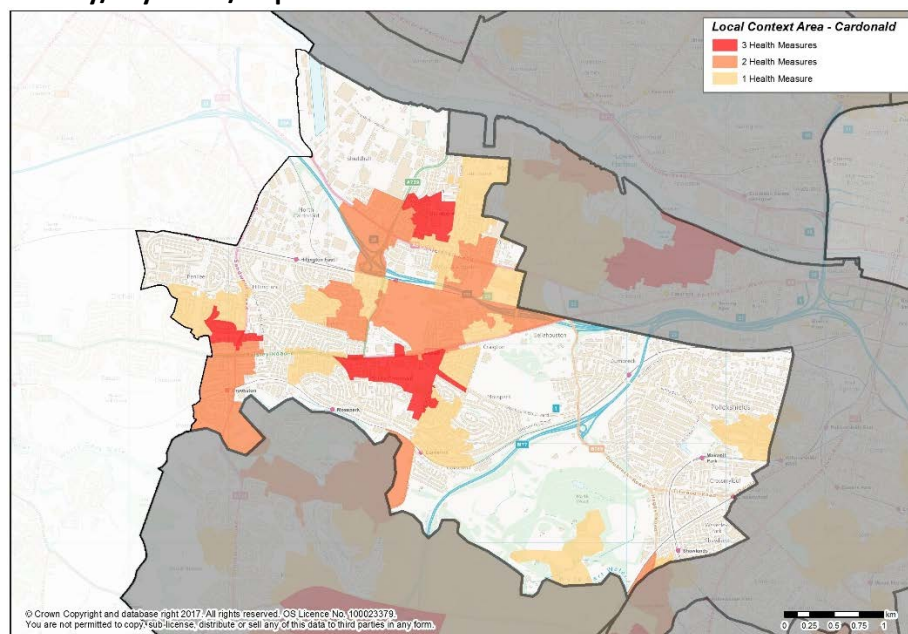


- 3.24 Other considerations that the Open Space Strategy identifies as important in informing the current and future need for open space to enhance the City's **Liveability** include consideration of the setting and amenity it can provide, as part of a placemaking approach, and the views of the public on open space in their area. Responses to this LCA will be important in establishing the latter.

4 A Healthy Glasgow

- 4.1 Good quality open spaces can have a significant bearing on peoples' health. In addition to the obvious opportunities for exercise, active travel, play and food growing, open spaces can also enhance mental health and well-being through the creation of more attractive urban environments; the provision of better opportunities to socialise; and opportunities to interact and engage with nature.

Map 9: Glasgow-wide Highest Incidences of Stroke, Heart Disease and Anxiety/Psychosis/Depression



- 4.2 Using three indicators of health, it is possible to identify the areas in the City that might benefit most from enhancement of open

space. Data relating to three health indicators has been obtained that shows the number of night's stay in hospital for stroke and heart disease (that can be taken as indicative of physical health) and for anxiety, psychosis and depression (a proxy for mental health) for each of the City's census data zones.

- 4.3 Each indicator has been ranked across the City and mapped. Map 9 illustrates those zones with the most stays (the top 15%) for one or more of the three indicators. A datazone that is in the top 15% of one indicator is shown in yellow, one in the top 15% of two indicators is shown in orange and one in all three is shown in red.
- 4.4 Significant parts of the western LCA area are within data zones ranked in the top 15% for hospital stays for one or more of these health measures. Mossbank/Cardonald and Drumoyne, in particular, appear to coincide with deficiency in access to publicly usable open space - the Stage 2 LCA process should consider how best to address this as a priority.
- Walking and Cycling*
- 4.5 National Cycle Network (NCN) Route 7 passes through the LCA area, crossing the M8 at Ibrox and passing through open space between Bellahouston Academy and the M77. It then runs through the "Canyon", a green corridor running alongside the M77, before entering Pollok Park from the north and heading to Paisley alongside the White Cart Water. The four mile White Cart walkway heads in the other direction, east from Pollok Park to Holmwood House in Cathcart and a variety of other routes exist within Pollok Park and Bellahouston Park. Other local routes exist in the vicinity of the Queen Elizabeth University Hospital and on the approaches to, and through, the Clyde Tunnel.

Local Context Area - Cardonald

- Green Network
- Core Path
- Adopted Bridge / Underpass
- Core Path on Water
- Water Access Point

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0 0.25 0.5 0.75 1 km

4.6

Glasgow's [Strategic Plan for Cycling](#) sets out a diagrammatic representation of Glasgow's aspirations to improve cycling infrastructure in this part of the City, on both east-west and north-south orientations. The opportunities for doing so, and delivering associated environmental and placemaking improvements, should be investigated in the context of the above opportunities.

4.7

Aspirational Core Network

- Existing Route
- In Development
- Future Aspirational Network

City Centre Transport Strategy - Proposed Cycle Routes

Indicative plan only. For more detailed information and mapping of the proposed network please visit www.glasgow.gov.uk/cycling

4.8 Other considerations that the draft Open Space Strategy identifies as important in informing the current and future need for open space to enhance the City's **Health** include consideration of:

- opportunities to encourage play;
- provision of an appropriate quantity and quality of open space to meet demand for formal outdoor sports;
- provision of an appropriate quantity of open space to meet demand for food growing; and
- how open space can help address issues such as air quality and pollution

5 A Resilient Glasgow

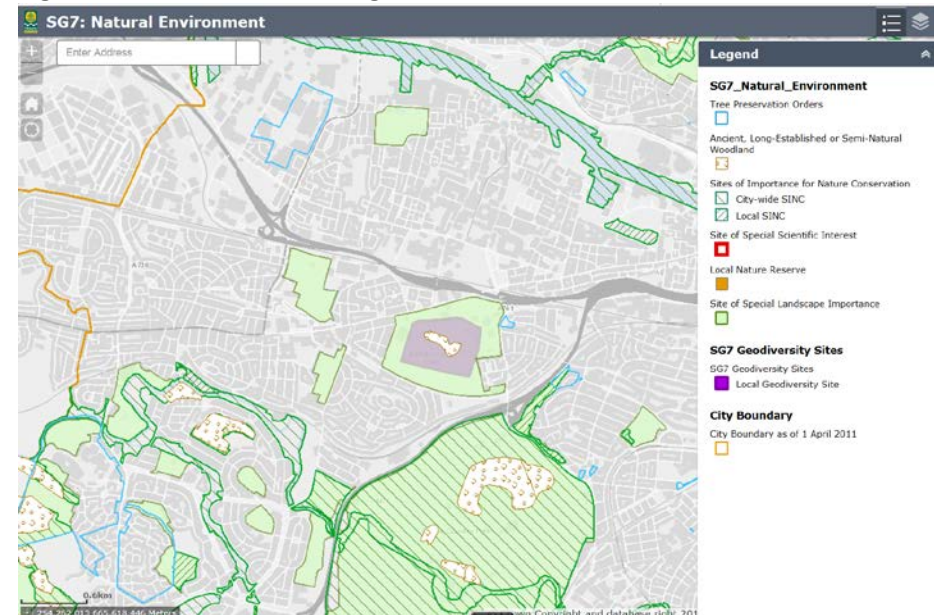
5.1 People, nature and infrastructure can all be vulnerable to a changing climate. More of the City will be exposed to flood risk associated with an increased intensity of rainfall, people can be vulnerable to heat waves and flood events and changes in warmth and precipitation can have significant impacts on habitats and the species they sustain. An increase in heat, rainfall and winds can impact on building fabric, ground conditions, road surfaces and rail lines, with implications for the transport network and other utilities. City Centre temperatures could increase as the built fabric absorbs and retain more of the sun's heat. Our open spaces provide opportunities to help the City adapt to inevitable climate change.

Natural Environment

5.2 The [environmental designations](#) (Fig 7) in the Cardonald LCA are concentrated in the key open spaces, particularly the public

parks. The area's most important public parks (Bellahouston, Pollok, Maxwell, Elder and Rosshall) are all designated Sites of Special Landscape Importance and additional SSLIs can be found at Cardonald and Craigton Cemeteries and at Corkerhill. Both the White Cart (forming the southern boundary of much of the area) and the Clyde (the northern boundary in the north west) are Sites of Importance for Nature Conservation and other SINCs can be found at Festival Park, around King George V Dock, in Maxwell Park, in Dumbreck and at Corkerhill. There are also some large areas of Ancient, long-established or semi-natural woodland, notably in Pollok and Bellahouston Parks, but also the Bluebell Woods in Shawlands.

Figure 7: Environmental Designations



Green Network

- 5.2 Map 9 shows the key elements of the [Green Network](#) (as defined in SG6) in the Cardonald Area. It shows that larger, and better connected, elements of the Green Network lie in the central and southern parts of the area, centred on Bellahouston and Pollok Parks and around the White Cart corridor. The motorway and railway corridors provide some further links between the open spaces, but are much less functionally useful in terms of access and active travel routes for people. The remainder of the area contains many individual Green Network elements but connectivity between them is lacking in many instances. The Stage 2 LCA process should give consideration to whether this undermines the functionality of the wider Green Network and, if so, where there may be opportunities to remedy this.
- 5.3 The [Metropolitan Glasgow Strategic Drainage Partnership](#) is a partnership between the City Council, Scottish Water, Scottish Environment Protection Agency, Scottish Canals, surrounding Councils, the Scottish Government and other interested parties to:
- reduce flood risk;
 - improve water quality;
 - enable economic development;
 - improve habitats; and
 - co-ordinate and integrate investment planning.
- 5.4 SEPA has [modelled](#) the extent of potential flooding from rivers, surface water and coastal sources. The modelling indicates that areas around the White Cart Water in the south of the area are potentially susceptible to flooding from the river and that other

parts of the area are potentially susceptible to surface water flooding.

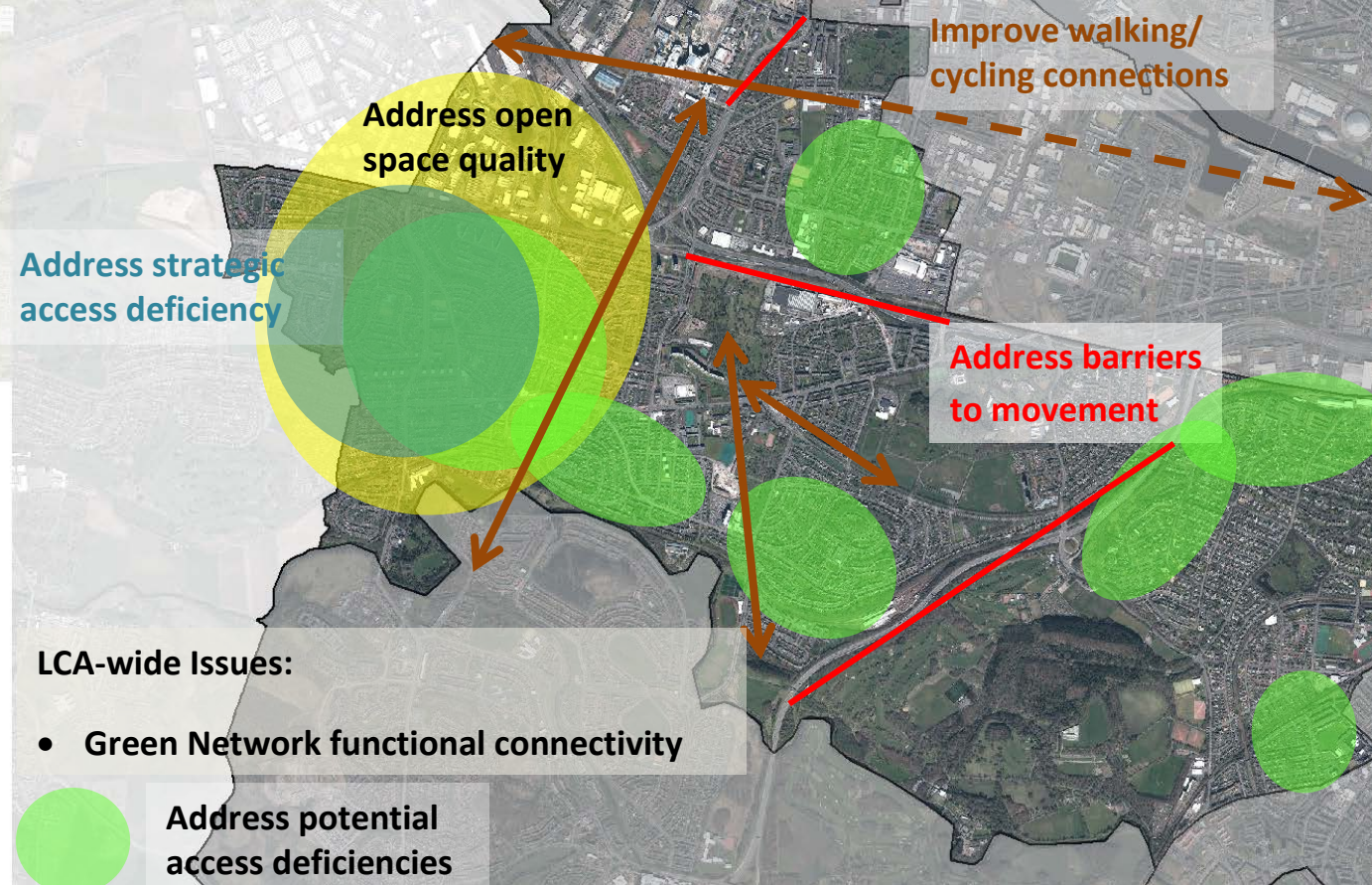
- 5.5 As required by The Flood Risk Management (Scotland) Act 2009, the Council has published the [Local Flood Risk Management Plan](#) for the Clyde and Loch Lomond Local Plan District (LPD). The Plan identifies a number of actions to address potential flooding in Potentially Vulnerable Areas (PVAs) and a Surface Water Management Plan (SWMP) is being brought forward for the Hillington/Cardonald area to address flooding in PVA 11/13 – White Cart Catchment. Opportunities for associated green network enhancements should be considered when bringing forward the detailed design.
- 5.8 Other considerations that the draft Open Space Strategy identifies as important in informing the current and future need for open space to enhance the City's **Resilience** include consideration of:
- how to improve habitat connectivity;
 - the city's blue spaces; and
 - how open space can be used to help mitigate climate change, eg by capturing and removing CO2 from the atmosphere.

6 *Open Space Priorities*

- 6.1 Through the Stage 2 LCA process, consideration will require to be given to how best to address the deficiencies in accessibility, quality and quantity identified above. The Council will attempt to address these matters through a placemaking approach – one that delivers multiple benefits for the people of the area, for flood water management and for nature and the green network. In this way, the Council and its partners will aim to maximise the benefit of investment undertaken to deliver multifunctional solutions, helping address issues such as access, connectivity, water management and biodiversity wherever possible.
- 6.2 The high-level analysis set out in the previous sections is intended to highlight the key issues that the Stage 2 LCA process will need to address as a priority, including:
- 6.3 The LCA process should also inform, on an on-going basis, the development of the Strategic Development Frameworks being brought forward under policy CDP2 of the City Development Plan.
- 1** how it might be possible to break down barriers posed by major rail and road infrastructure;
 - 2** identification of potential opportunities to address accessibility deficiencies and the approach to be taken if it's not possible to meet accessibility or quantity standards – including making journeys to existing open space safer and more attractive;
 - 3** opportunities for addressing open space quality in the north west of the area;
 - 4** how to improve access to strategic open space;
 - 5** how to improve the connectivity between the core paths in the north and west of the area and to the core paths in the south and east of the area;

- 6** improving cycling connections across the area, in line with the SPC, in conjunction with environmental and placemaking improvements;
- 7** where best to deliver any improvements in demand-led provision identified through studies of outdoors sports provision and growing space;
- 8** where there might be scope to improve functional connections between different elements of the green network in the area; and
- 9** opportunities presented by surface water management planning to deliver other green network ambitions.

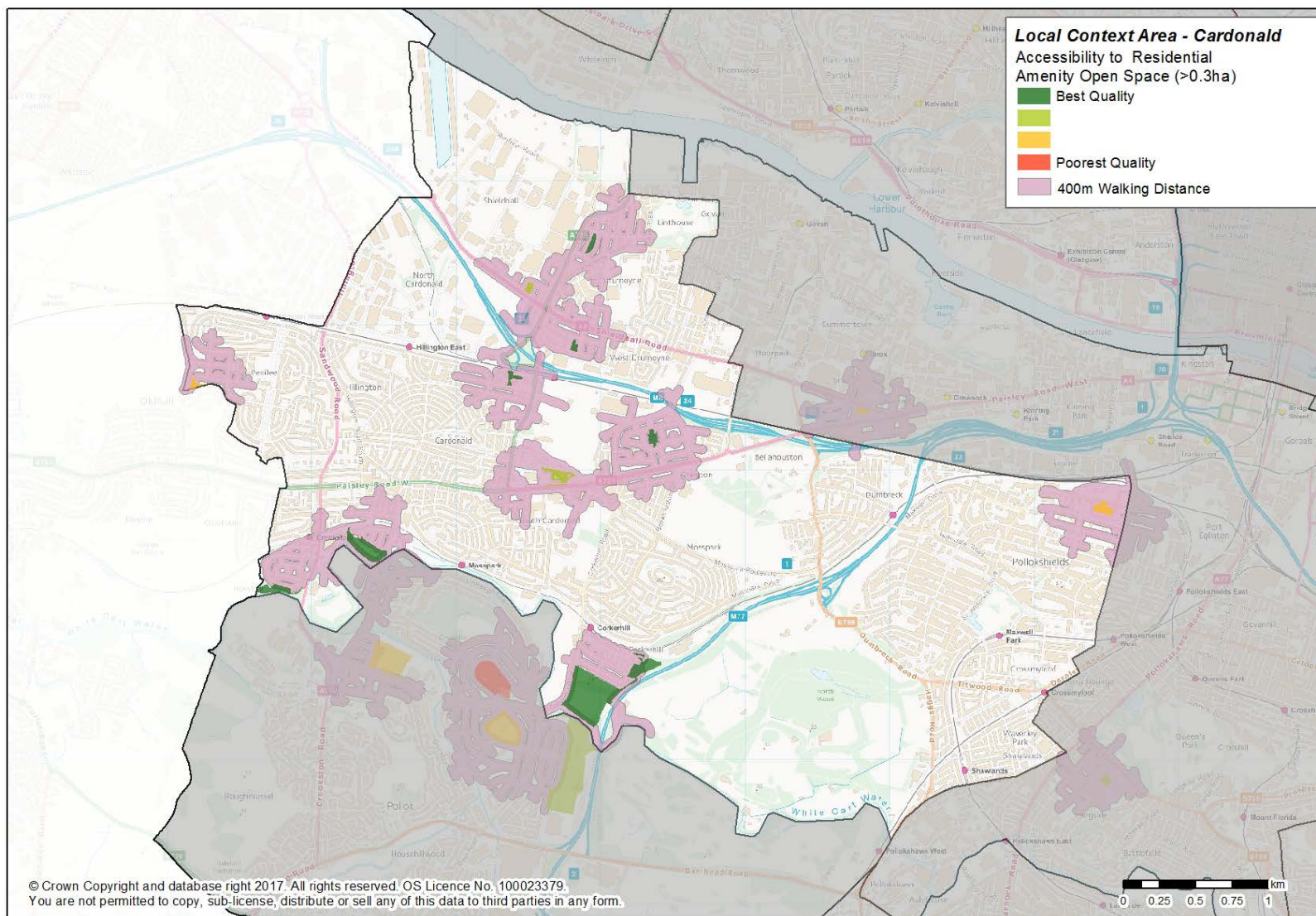
Cardonald - Key Priorities for Stage 2 LCA



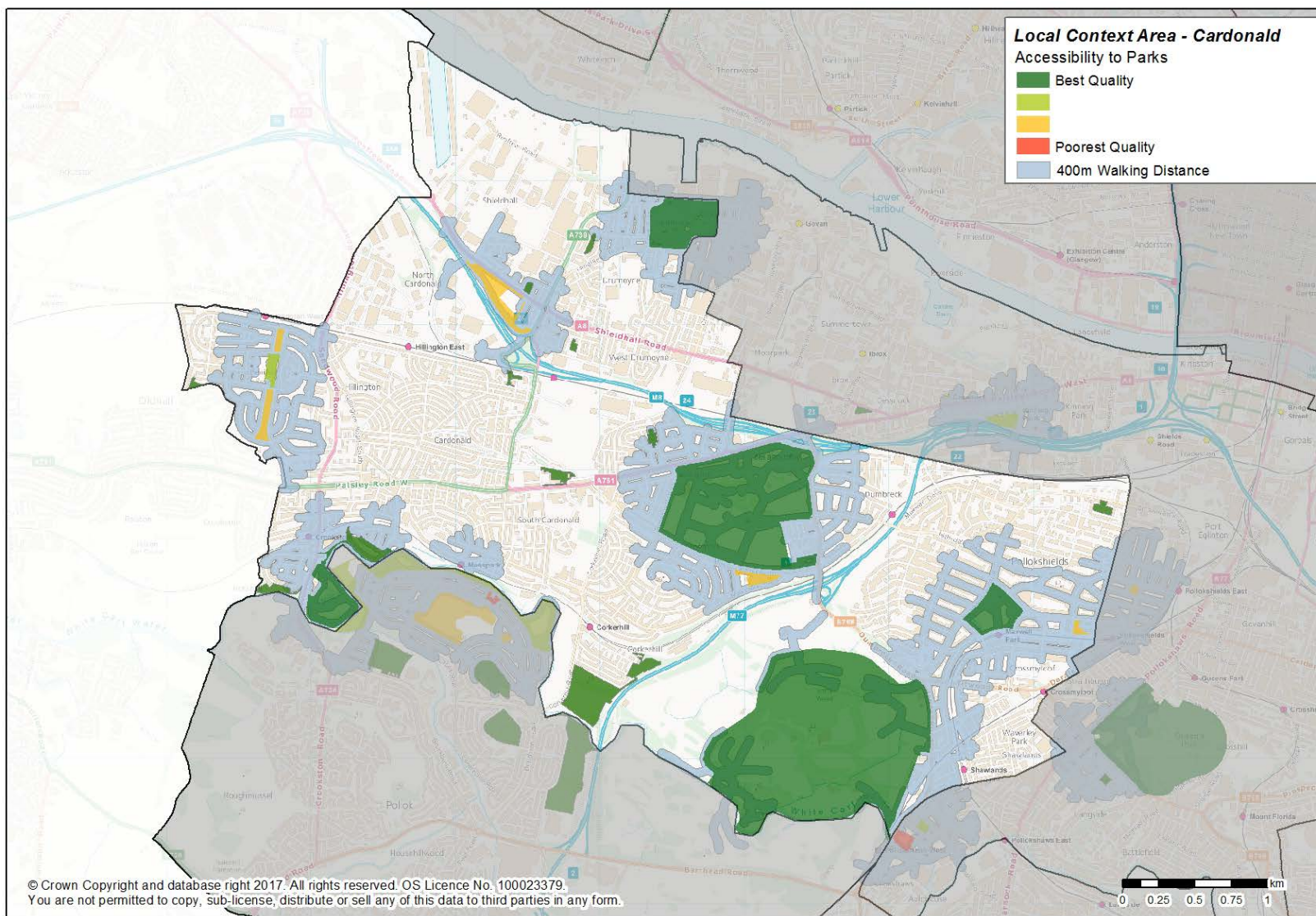
7 Key Statistics

a	Population	48,745
b	Land Area	1,672 has
c	Population Density	29 people per ha
d	Functionally Useful Publicly Usable Open Space (see Glossary)	344 has
e	Vacant/Derelict Land	30 has
f	Planned housing output from housing land to 2023	409 Units
g	Estimated population increase from housing land to 2023	892 population
h	Prospective new Population Density at 2023	30 people per ha
i	Existing Functionally Useful Publicly Usable Open Space per 1000 people ($d/(a/1000)$)	7 has per 1000 people
j	Prospective functionally useful publicly usable open space per 1000 people ($d/((a+g)/1000)$)	6.9 has per 1000 people
k	Vacant land (e) as percentage of total land area (b)	1.8%

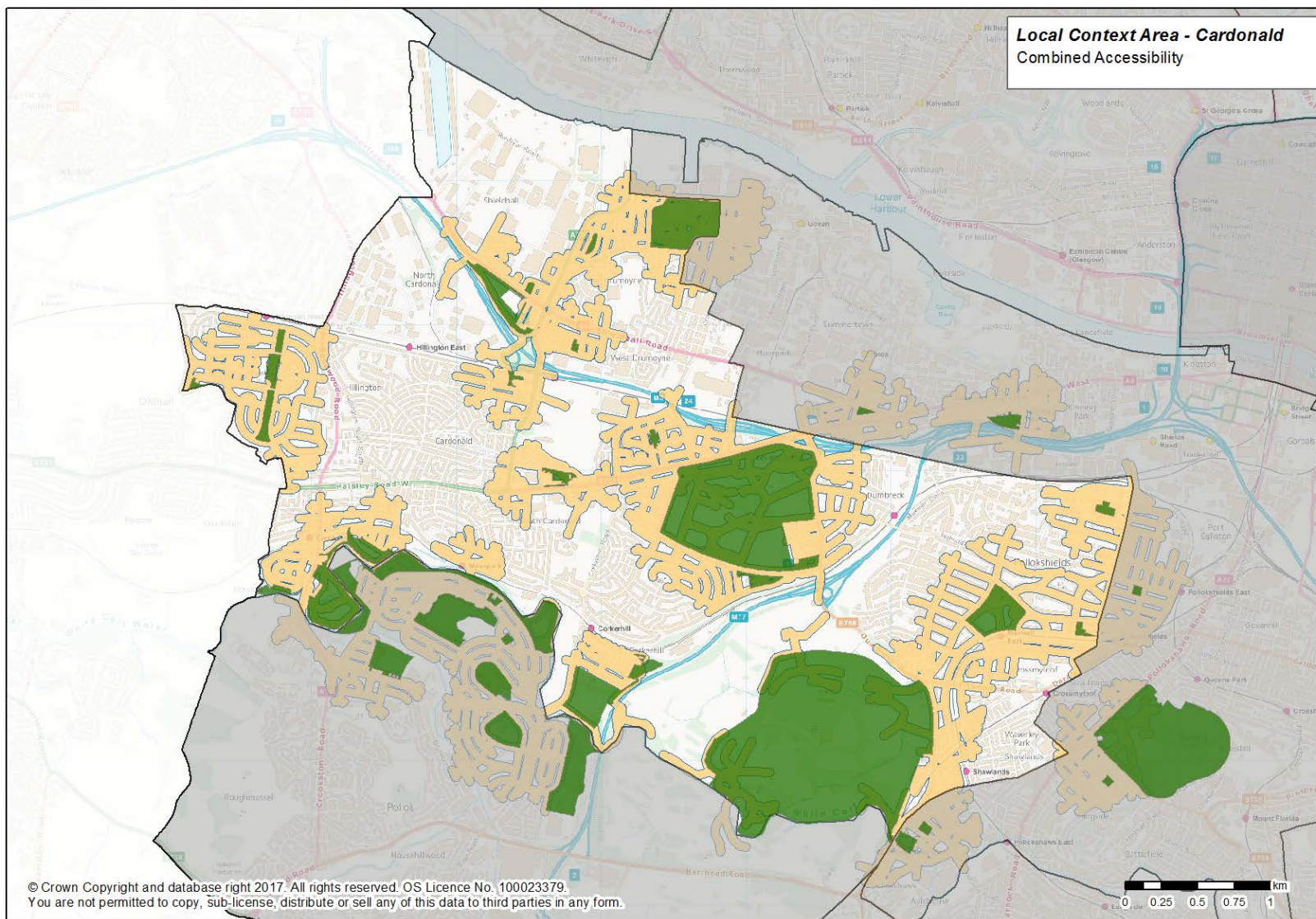
ANNEX 1: Access to Residential Amenity Open Space >0.3 ha



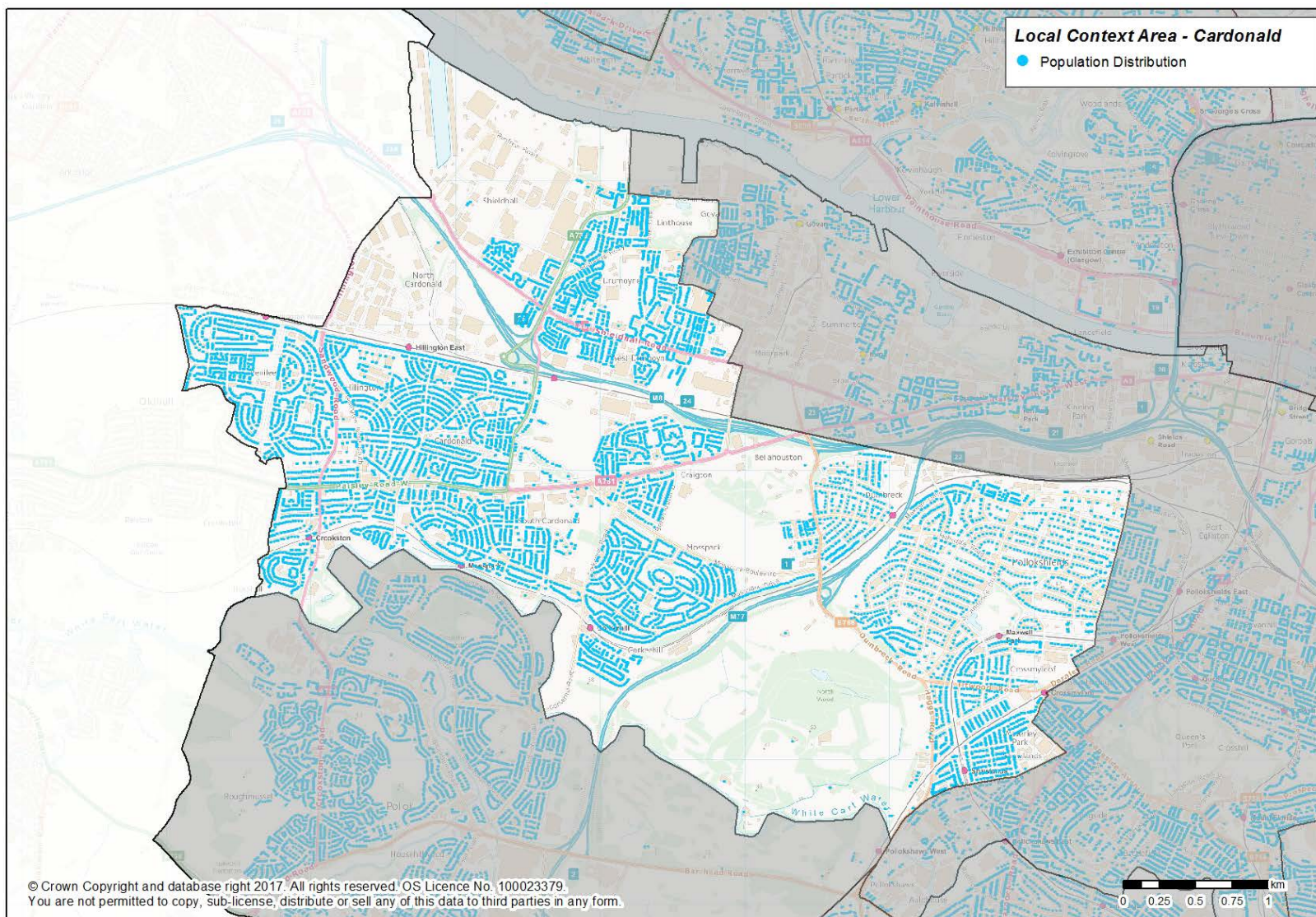
ANNEX 2: Access to Public Parks and Gardens



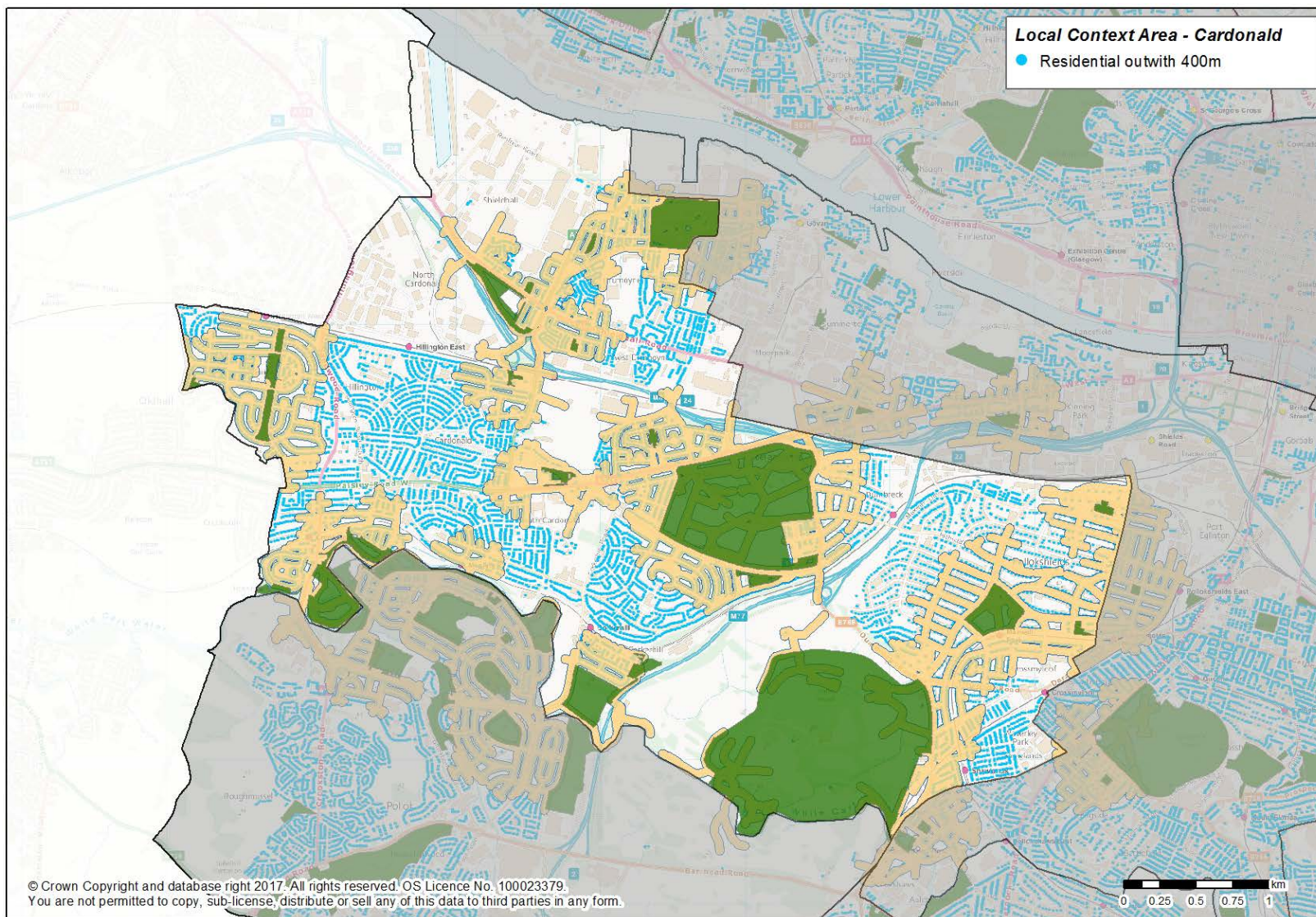
ANNEX 3: Access to Potentially Multifunctional Open Space > 0.3 Ha



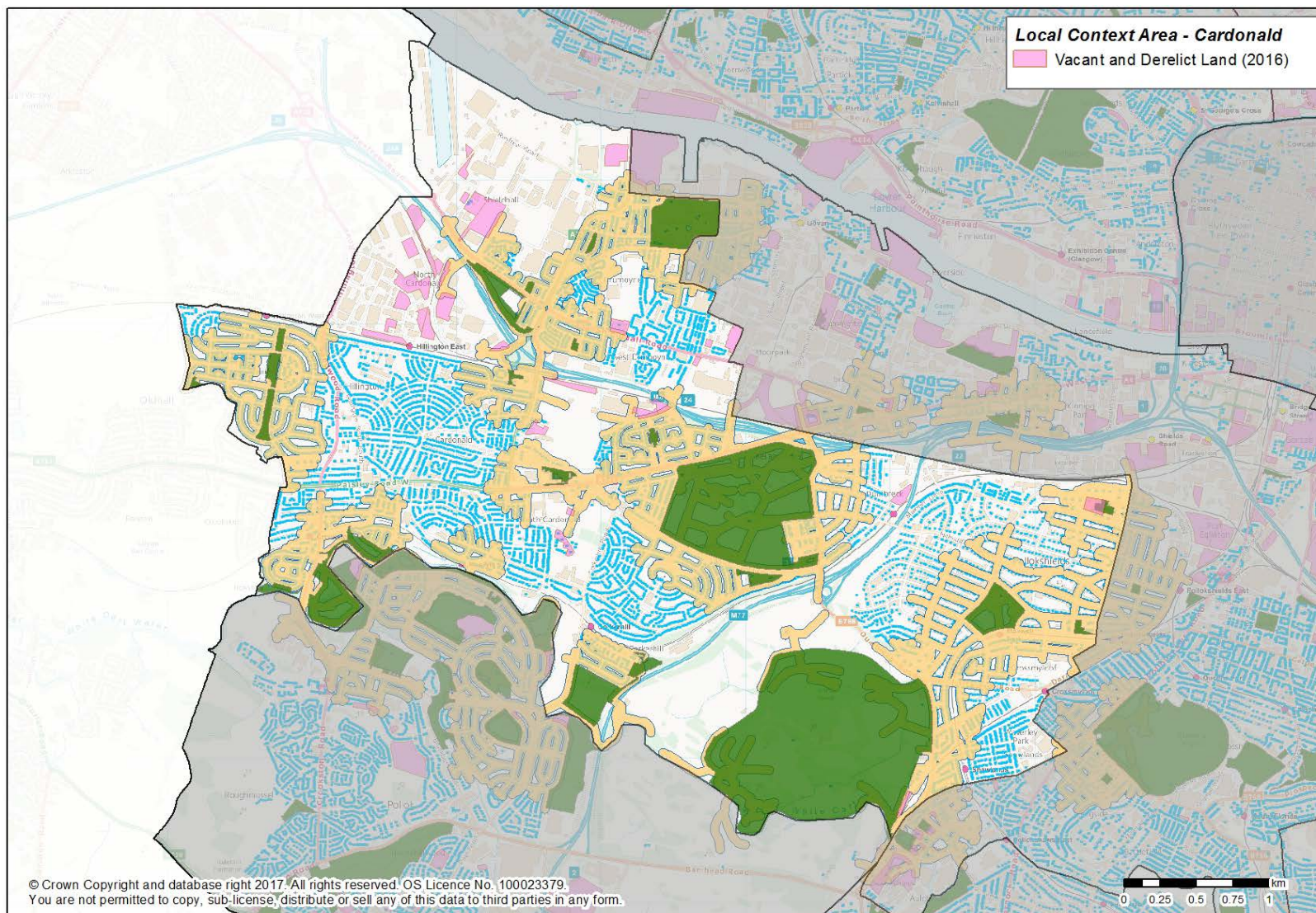
ANNEX 4: Population Distribution



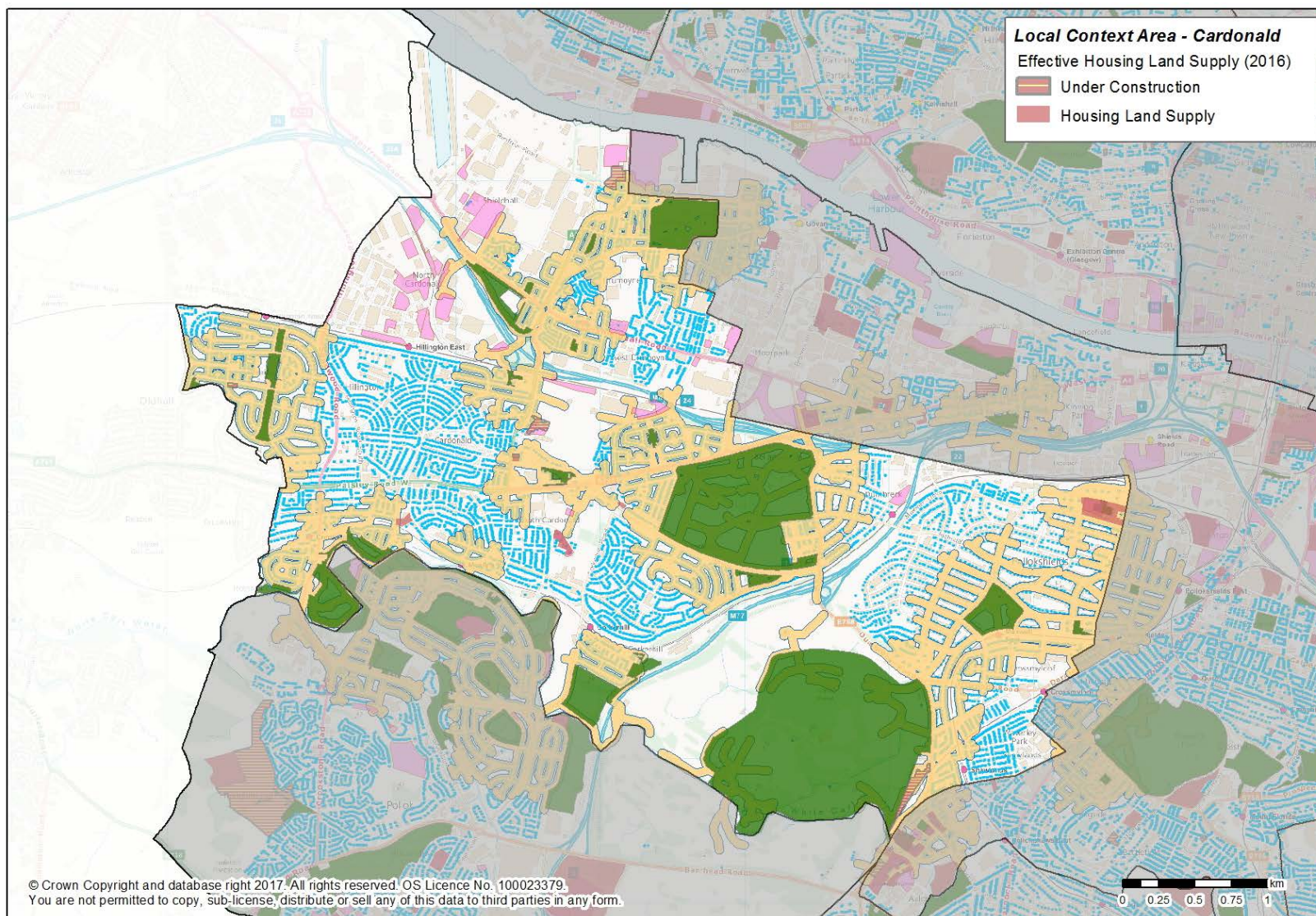
ANNEX 5: Potential Accessibility Deficiencies



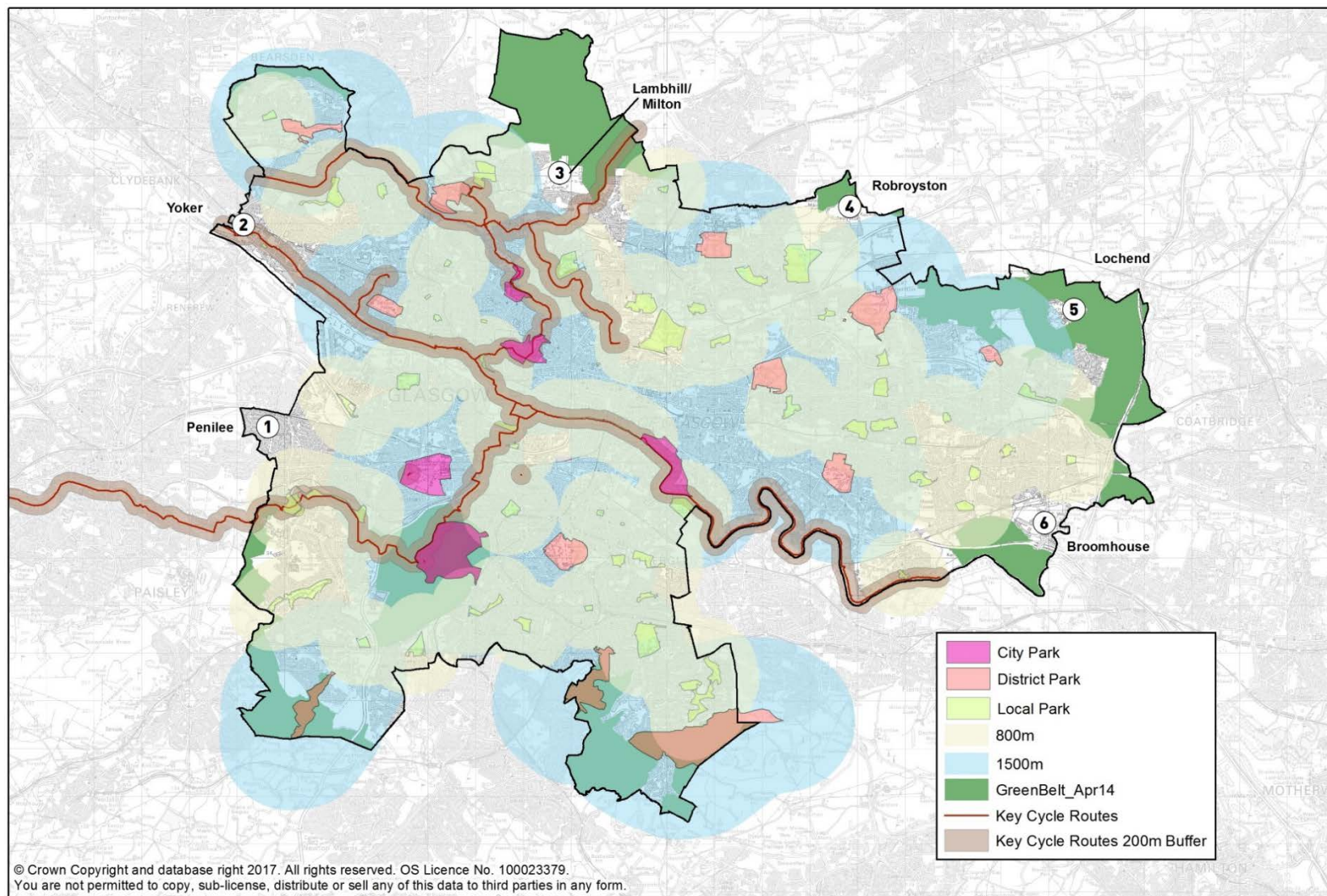
ANNEX 6: Vacant/Derelict Land



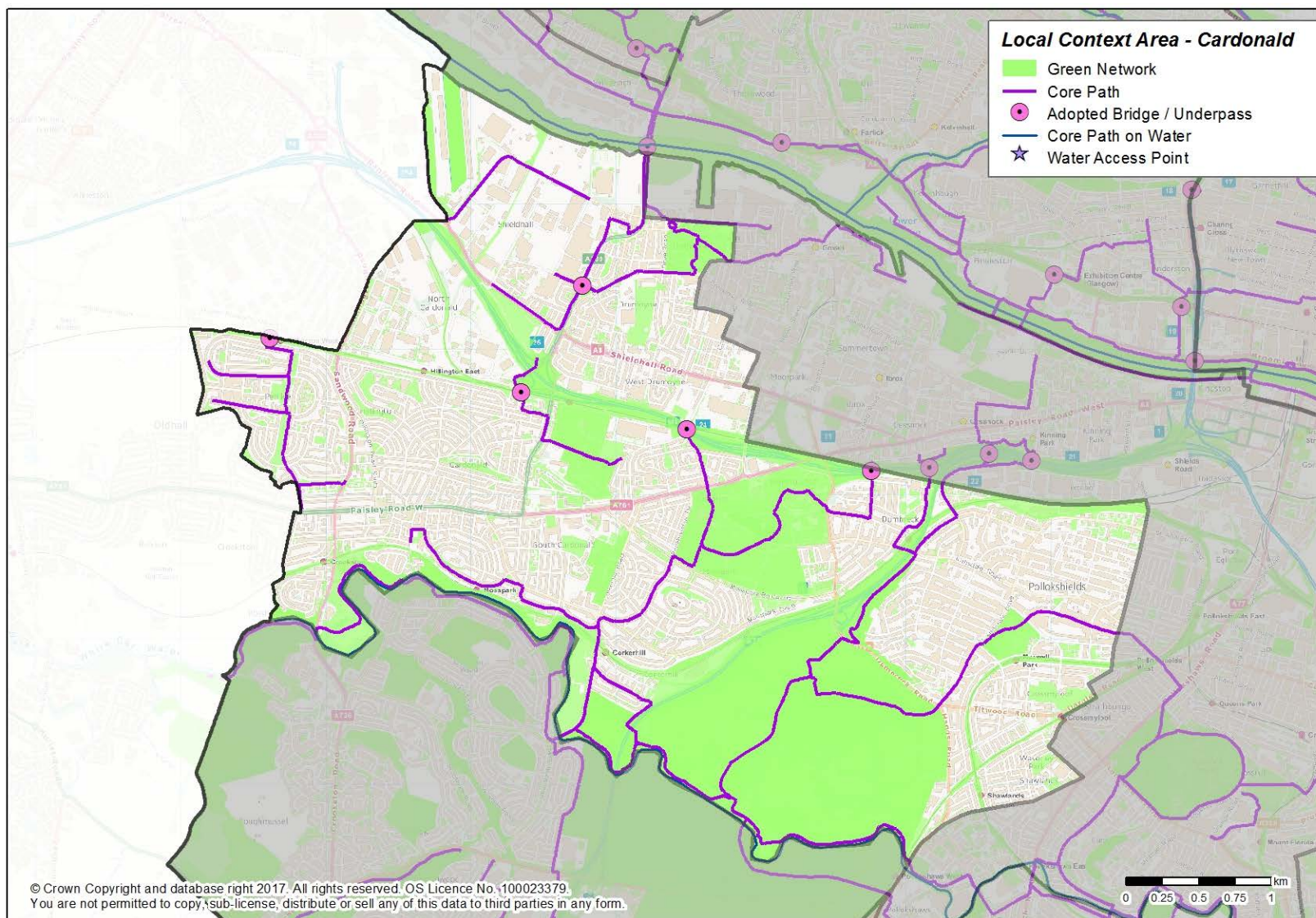
ANNEX 7: Vacant/Derelict Land and Housing Land Supply



ANNEX 8: Access to Larger Open Spaces



ANNEX 9: Green Network and Core Paths



ANNEX 10: Draft Open Space Standards

Accessibility Standard

All homes (including purpose-built student accommodation), outwith the City Centre, should be within a 400m actual walking distance of a good quality, publicly usable open space of 0.3 ha or more [a “Community Space”].

Quality Standard

Community Spaces, whether existing or proposed, should, when considered against the Quality Assessment Matrix, achieve a minimum overall score of 75% of the total possible score of the applicable criteria and the minimum required score specified in the matrix for each of the applicable criteria.

Quantity Standard

There should be 1.9 ha of publicly usable open space per 1000 people in the Inner Urban Area and 5.5 ha of publicly usable open space per 1000 people in the Outer Urban Area.

GLOSSARY

Accessibility Standard: a standard to be used by the Council to deliver access to good quality open space of an appropriate size within a 400m walk of people's homes.

Active Travel: travel by physically active, human-powered modes, most commonly walking and cycling, as opposed to motorised ones, and largely for functional reasons as opposed to recreational ones.

Biodiversity: the variety of living things on Earth, from the smallest insect to the largest mammal and tree.

City Development Plan (or Local Development Plan): the Council's land use plan which sets out a 10 year planning framework for the development of the City and policies to guide its development.

Community Spaces: spaces that the Council identify to provide for access to good quality open space in peoples' immediate environment (meeting the Accessibility Standard) and that provide a multitude of open space needs (meeting the Quality Standard).

Demand-led open space: those types of open space for which a quantifiable demand can be established (eg allotments, sports pitches) and which may have restrictions on access and use.

Functionally Useful Publicly Usable Open Space: Those categories of Publicly Usable Open Space considered to usefully help meet demand for access to open space for the population. Excludes less functionally useful space such as amenity space associated with transport infrastructure or business (eg that would form a car park boundary).

Green Network: connected areas of green infrastructure and open space that together form an integrated and multi-functional network. (Source: SPP 2014).

Green Network Masterplan: a plan for how the green network, and individual spaces within it, should be used, managed and maintained to address all aspects of open space need in the City in a co-ordinated manner.

Metropolitan Glasgow Strategic Drainage Partnership (MGSDP): a partnership of organisations working to identify and deliver measures needed to ensure that Glasgow's sewerage and drainage networks can cope with a changing climate.

Open Space: space within and on the edge of settlements comprising green space (eg parks, playing fields), grey space (eg civic space, urban realm) and blue space (eg burns, lochs).

Open Space Map: a map illustrating the extent, type and spatial distribution of the Glasgow's protected open spaces.

Open Space Strategy: a means of co-ordinating the policies of the different council departments with responsibilities for open space, and of focusing liaison and partnership working with relevant public, private and community interests. (Source: PAN 65 2008).

Publicly usable open space: those categories of protected open space which are not demand-led spaces and which, in general terms are accessible to the public with relatively few restrictions eg public parks or amenity spaces.

Quality Standard: a standard to be used by the Council to ensure that spaces used to meet the Accessibility Standard are of good quality and provide for a variety of open space needs.

Quantity Standard: a standard to be used by the Council to ensure a sufficient quantity of publicly usable open space within each part of the City.

Supplementary Guidance (SG): a document prepared to support the City Development Plan, setting out further detailed guidance on the matters contained in the CDP.