



PROPOSED CITY DEVELOPMENT PLAN 2016

# Natural Environment

SUPPLEMENTARY GUIDANCE SG7

Consultation Draft, June 2016



PROPOSED CITY DEVELOPMENT PLAN POLICIES	PROPOSED CITY DEVELOPMENT PLAN SUPPLEMENTARY GUIDANCE
CDP 1 The Placemaking Principle	SG 1: The Placemaking Principle
CDP 2 Sustainable Spatial Strategy	<i>SDF City Centre</i> <i>SDF Glasgow North</i> <i>SDF Govan Partick</i> <i>SDF Greater Easterhouse</i> <i>SDF Inner East</i> <i>SDF River</i> <i>LDF Drumchapel</i> <i>LDF Pollok</i> <i>LDF South Central</i>
CDP 3 Economic Development	SG 3 Economic Development
CDP 4 Network of Centres	SG 4 Network of Centres
CDP 5 Resource Management	SG 5 Resource Management
CDP 6 Green Belt and Green Network	SG 6 Green Belt and Green Network
CDP 7 Natural Environment	SG 7 Natural Environment
CDP 8 Water Environment	SG 8 Water Environment
CDP 9 Historic Environment	SG 9 Historic Environment
CDP 10 Meeting Housing Needs	SG 10 Meeting Housing Needs
CDP 11 Sustainable Transport	SG 11 Sustainable Transport
CDP 12 Delivering Development	SG 12 Delivering Development

Policies CDP 1 (The Placemaking Principle) and CDP 2 (Sustainable Spatial Strategy) are overarching policies which, together with their associated Supplementary Guidance, must be considered for all development proposals to help achieve the key aims of The Plan.

Policies CDP 3 to CDP 12 (and associated Supplementary Guidance) provide more detail on specific land use elements which contribute to meeting the requirements of the overarching policies.



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## List of Acronyms

BGS	British Geological Survey
CDP	City Development Plan
CIEEM	Chartered Institute of Ecological and Environmental Management
EclA	Ecological Impact Assessment
EIA	Environmental Impact Assessment
EPS	European Protected Species
INNS	Invasive Non-Native Species
LBAP	Local Biodiversity Action Plan
LGS	Local Geodiversity Sites
LNR	Local Nature Reserve
SAC	Special Areas of Conservation
SEPA	Scottish Environment Protection Agency
SG	Supplementary Guidance
SINC	Site of Importance for Nature Conservation
SNH	Scottish Natural Heritage
SPA	Special Protection Areas
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Urban Drainage Systems
TPO	Tree Protection Order



## 1. INTRODUCTION

1.1 Scottish Planning Policy (SPP) introduces a presumption in favour of development that contributes to sustainable development and indicates that policies and decisions should be guided by a number of principles, including:

- supporting climate change mitigation and adaptation including taking account of flood risk;
- having regard to the principles for sustainable land use set out in a Land Use Strategy for Scotland;
- protecting, enhancing and promoting access to natural heritage, including green infrastructure, landscape and the wider environment.

1.2 SPP also highlights that planning authorities have a duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity and, in doing so, must have regard to, amongst other things, the Scottish Biodiversity Strategy. This duty requires to be reflected in development plans and development management decisions.

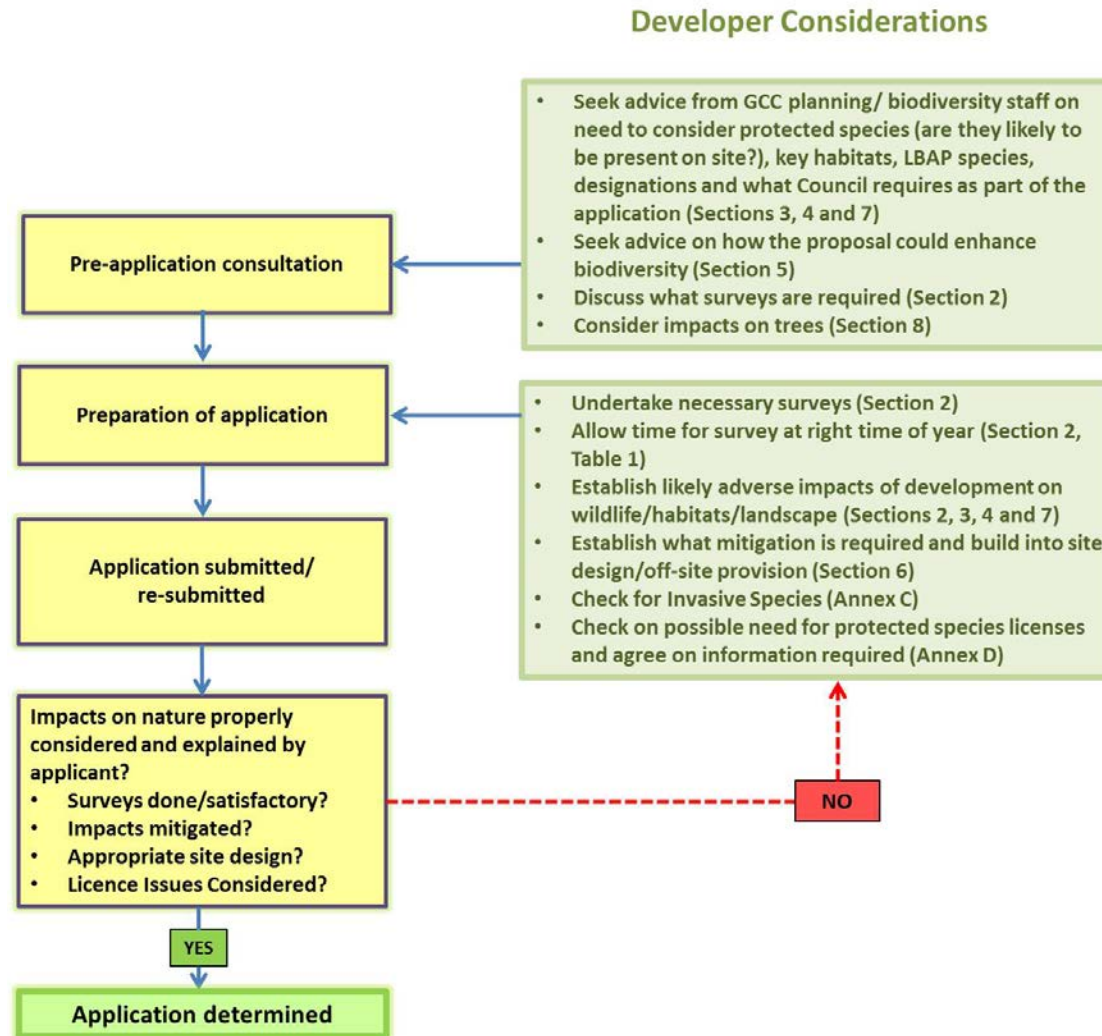
1.3 City Development Plan (CDP) policy CDP 7 is intended to help deliver these outcomes. This Supplementary Guidance is intended to provide further detailed guidance on CDP 7. It should be read in conjunction with other CDP policies and associated SG, particularly those on: Placemaking (SG1); Green Belt and Green Network (SG6); and the Water Environment (SG8).

1.4 In support of policy CDP7, this SG sets out how the biodiversity (wildlife, habitats and ecosystems), landscape and geodiversity of Glasgow will be taken into account when considering development proposals. Applicants are encouraged to refer to this guidance at an early opportunity as it contains important information on potential wildlife, habitat, landscape and geodiversity requirements, constraints and opportunities for new development. Where relevant, applicants should seek pre-application advice from the Council to identify potential issues and avoid unnecessary delays in the planning process. Figure 1 provides a broad overview of how this SG should be used in the development management process. Annexes C (Invasive Non-native Species) and D (Licensing Requirements) provide some guidance on the legal requirements developers will require to be cognisant of.

1.5 Scottish Natural Heritage (SNH) is a statutory consultee for certain developments that affect wildlife, landscapes and the natural environment. SNH focuses on proposals that require an Environmental Impact Assessment (EIA) and those that could affect sites with a statutory nature conservation designation. Annex A sets out further information on SNH's role in the planning system.



Figure 1. SG 7 and the Development Management Process





## 2. SITE APPRAISAL AND ECOLOGICAL SURVEYS

### *Initial Site Appraisal*

- 2.1 The Council expects that all development proposals shall be based on an understanding of the characteristics of the site, including any possible wildlife and habitat significance. This should be done as part and parcel of a wider placemaking approach, and prior to site clearance/preparation works beginning. The extent to which appraisal (and any follow up survey work) is required, will depend on the scale, nature and location of the proposal. It may be that an initial site appraisal (see Annex B) is sufficient but, depending on the findings, you may need to carry out further surveys for particular species or in relation to a particular habitat. For instance, if there is a watercourse, long grass or trees on the site, this could provide habitat for protected species and will need more detailed surveys.
- 2.2 A typical site appraisal should:
- a) highlight any designations on or near to the site;
  - b) identify potential important habitats (mature trees, woodland, hedgerows, ponds or watercourses);
  - c) identify if protected species are likely to be in or near the site;
  - d) give an indication of the ecological data required for progressing a planning application; and
  - e) recommend if more detailed surveys will be necessary.
- 2.3 It can be important to understand what species occur, or are known to have formerly occurred, within Glasgow. An updated Glasgow Biodiversity Audit was undertaken in 2014 and will continue to be updated on a regular basis. It details the species known to exist in the City, together with information on their known extent. It may be used to inform the site appraisal/survey process and applicants can contact Glasgow Museums Biological Records Centre ([biological.records@glasgowlife.org.uk](mailto:biological.records@glasgowlife.org.uk)) for further information on the species which exist, or have been known to exist, in and around their site.
- 2.4 Where a protected or otherwise important (eg Local Biodiversity Action Plan) species or habitat has been identified on, or adjacent to, the site, planning applications shall be supported by an appropriate level of information. At the time of submitting a planning application, applicants need to provide the following, as appropriate:
- a) Information on specific habitats, plants, animals (including how the site is used by them) and geology and the surrounding area, including its sensitivity, significance and value.
  - b) An assessment of any potential effect of the development on these features.
  - c) If adverse effects are expected, then details of proposed mitigation measures by the developer to avoid or minimise these effects.
  - d) Where there is likely unavoidable damage or disturbance, then proposals which would compensate for the loss.



- e) A statement of whether there may be licensing requirements and, with reference to the relevant licence tests, a demonstration that a future species licence is likely to be granted (see Annex D of this SG).

**Timing of Surveys – Points to Remember:**

- a) Consider what surveys may need to be done as early as possible
- b) Discuss surveys with planning authority
- c) If you are dealing with a proposal that could affect an SSSI then consult with SNH prior to submitting the application to the Council
- d) Make sure species surveys are carried out at the optimum time of the year
- e) Ensure surveys are carried out in optimal weather conditions where possible
- f) Highlight survey limitations if necessary

- 2.5 Site appraisals and surveys shall be undertaken by a suitably qualified/experienced licensed ecologist. Good practice also indicates that for the most significant developments (e.g. a development covering several hectares) an Ecological Impact Assessment (EclA) would be required<sup>1</sup>. If necessary the EclA shall adopt the methodology of CIEEM. Surveys for other natural heritage interests such as geology, geomorphology and soils shall also be undertaken by a suitably qualified and experienced person (see CIEEM Directory).

<sup>1</sup> Guidelines for EclA have been produced by CIEEM:  
[http://www.cieem.net/data/files/Resource\\_Library/Technical\\_Guidance\\_Series/EclA\\_Guidelines/TGSEclA-EclA\\_Guidelines-Terrestrial\\_Freshwater\\_Coastal.pdf](http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/EclA_Guidelines/TGSEclA-EclA_Guidelines-Terrestrial_Freshwater_Coastal.pdf)

*Appropriate Timing of Surveys*

- 2.6 The timing of any ecological surveys is important to consider at an early stage as they often need to be carried out at certain times of year. A survey calendar indicating what, in general terms, are likely to be the most appropriate times of year to undertake surveys for various species and habitats in Glasgow is provided in Table 1. The calendar is intended for use as a general reference guide only. Species surveys are weather dependent so it may be necessary to delay a survey or to carry out more than one survey if the weather is not suitable. All constraints must be clearly reflected in the survey.
- 2.7 In some circumstances, appraisals/surveys for certain species and habitats may be required over more than one season. If surveys have been carried out a significant amount of time before an application is made, the Council may require further surveys before the application can be determined or the development is started. Some mobile species can expand their range and distribution over time, and pre-construction surveys may need to be undertaken once permission is granted, but prior to development commencing on-site.



**Table 1. Ecological Survey Calendar**

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badgers	Limited sett/bait surveys	Bait marking and sett surveys			Limited bait and marking and sett surveys			Sett surveys				Limited sett/bait surveys
Bats	Inspection of hibernation roosts (difficult)			Limited Activity	Summer roost emergence surveys and activity surveys (internal inspection of roof spaces possible throughout Apr-Oct)				Limited Activity	Inspection of hibernation roosts (difficult)		
Birds	Winter species		Breeding Birds/Migrant Birds		Breeding Birds		Limited Activity	Migrant Species		Winter Species		
Great Crested Newt	Newts hibernating		Pond surveys for adults/terrestrial survey. Egg surveys April – mid June. Larvae surveys from mid-May.					Habitat Survey		Newts hibernating		
Otters	Limited by vegetation cover and weather conditions rather than seasons											
Water Vole	Initial habitat survey (including presence of burrows)			The breeding season is the optimum time to assess water vole presence as latrines are regularly visited and marked. Two site visits should be carried out.						Initial habitat survey (including presence of burrows)		
Fish	For coastal, river and stream dwelling species, the timing of surveys will depend on the migration pattern of the species concerned. Where surveys require information on breeding, the survey timings will need to coincide with the breeding period. This may be summer or winter months, depending on the species.											

	Recommended period for survey
	Sub-optimal period for survey
	Surveys not possible

*Note: This calendar should be used as a general reference guide only with advice being sought from a suitable experienced licensed ecologist as site and project specific circumstances may alter seasonal windows*



### 3. SITES DESIGNATED FOR THEIR NATURE CONSERVATION IMPORTANCE

- 3.1 Some nature conservation sites carry statutory protection at the international, national and local levels. There are no internationally designated sites in Glasgow.

#### *National Sites - Sites of Special Scientific Interest*

- 3.2 The nationally designated sites in Glasgow are Sites of Special Scientific Interest (SSSIs) which are notified for the special interest of their habitats, flora, fauna, geology or geomorphology. There are 5 SSSIs in Glasgow – their locations and detailed boundaries are set out on the Council's [on-line mapping resource](#). This SG will also apply to other SSSIs (or other nature conservation designations) that may be designated during the lifetime of the LDP.

- 3.3 Development that affects a SSSI will only be permitted where:
- a) it will not adversely affect the integrity of the area or the qualities for which it has been designated – the applicant shall demonstrate that SNH is satisfied that the objectives of the designation and the overall integrity of the SSSI will not be compromised by the proposed development, directly, indirectly or cumulatively; or
  - b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance

– where the integrity of the area would be compromised, the applicant must specify how any adverse effects on the SSSI are outweighed by such benefits.

- 3.4 The Council will apply the precautionary principle where the impacts of a proposed development on an SSSI are uncertain but there is evidence to suggest that significant irreversible damage *could* occur. In such circumstances, development proposals are likely to be refused unless modifications to the proposal eliminate the risk of such damage.

- 3.5 For development applications near SSSIs, and that have the potential to affect the water environment (wetlands etc), the applicant shall demonstrate how the proposed development will enhance, rather than have a negative impact upon, the:

- a) biodiversity of the associated habitats and species;
- b) appropriate River Basin Management Plan objectives for water quality and the environment; and
- c) amenity of the people living, working or otherwise spending time in the vicinity of the site.

#### *Local Sites - Local Nature Reserves and Sites of Importance for Nature Conservation*

- 3.6 Local sites can be split into two types: statutory and non-statutory designations. In Glasgow, Local Nature Reserves (LNRs) are statutory designations and enjoy specific legal protection. They are not designated through the development planning process, but via separate legislation. LNRs are areas of important



natural heritage, and are designated, and managed, by local authorities to give people better opportunities to learn about and enjoy nature close to where they live. Non-statutory designations (Sites of Importance for Nature Conservation (SINCs)) are identified through the development planning process. Both statutory and non-statutory local designations are given protection through the implementation of policy CDP7 and the associated guidance set out in this SG.

3.7 SINCs are set out on the Council's [on-line mapping resource](#). Policy CDP7 states indicates that the Council will review "existing site boundaries and justifications". In terms of local sites, this relates to both the existing Local and City-wide SINCs. The Council intends to undertake the review during the LDP period. It will entail: assessing existing SINCs to determine whether their characteristics remain worthy of SINC status (including a justification against the criteria set out under paragraph 197 of SPP); a detailed examination of site boundaries to determine whether these remain relevant; and an indication of where new SINCs should be considered (new sites considered worthy of protection as a SINC will be brought forward in the Main Issues Report for the next LDP). In the meantime, proposals affecting LNRs and SINCs (both Local and City-wide) will be assessed against policy CDP 7 and the further guidance set out in this SG.

3.8 There is a presumption against development which would have an adverse effect, directly, indirectly or cumulatively\*, on a LNR or a SINC, unless it can be clearly shown that:

- a) the objectives and integrity of the area will not be compromised, including, where appropriate, objectives for water quality. For LNRs, it will be necessary to demonstrate that the development proposal would accord with the Council's Management Plan; or
- b) there are social or economic benefits to be gained from the development that are of city-wide importance and clearly and significantly outweigh the conservation interest of the site – in such circumstances, suitable mitigation shall be provided in the form of compensatory nature conservation and water environment/quality measures.

\* including where this could damage the integrity and functionality of the wider network of habitats – see SG6: Green Belt and Green Network

3.9 Subject to assessment against the other policies of the City Development Plan, the Council will support proposals which enhance the nature conservation interest of the locally designated sites.

#### *Local Geodiversity Sites*

3.10 Geodiversity is defined as "the variety of rocks, minerals, fossils, landforms, sediments and soils, together with the natural processes which form and alter them". It is important because it is the foundation upon which plants, animals and people live, a source of basic raw materials, and a vital component of our cultural and built heritage. It can also be a unique teaching and scientific resource.



3.11 SPP states that “local nature conservation sites designated for their geodiversity should be selected for their value for scientific study and education, their historical significance and cultural and aesthetic value, and for their potential to promote public awareness and enjoyment”. The Local Development Plan Main Issues Report proposed a study to ascertain whether there were geological features worthy of protection through the CDP, and the Council subsequently commissioned the British Geological Survey (BGS) to audit and assess the geodiversity of Glasgow. A number of the sites audited by them are considered worthy of protection as Local Geodiversity Sites (LGSs). The LGSs are the areas of bedrock exposure or extent of the landform feature constituting the geodiversity site and its immediate access. Their detailed boundaries, together with surrounding Buffer Zones (areas identified as being required to protect access to, and viewpoints of, the site), are set out, for consultation ([on-line mapping resource](#) and Annex F). Following consultation, the LGSs to be protected by policy CDP7 will be set out on the Council’s on-line mapping resource. The 7 Lochs Wetland Park was identified in the audit, but is not proposed as a LGS. However it is noted for its geodiversity and landscape value and this shall be considered in the event of a development proposal.

3.12 Development proposals shall, wherever possible, make a positive contribution to the protection and enhancement of geodiversity. There is a presumption against development that would have a net adverse impact (taking account of any enhancement proposed) on the geoscientific interest (as defined in the [audit](#)) of a LGS, unless it can be shown that the social or economic benefits to be gained from the development clearly outweigh the geoscientific interest of the site. Applicants may be required to submit an assessment of the effects of their development on the geodiversity interest.

3.13 Access to, and within, the LGS buffer zone should be protected in any new development to provide for viewpoints of the site. Where appropriate, development proposals will be expected to deliver enhanced access to local geodiversity sites and/or interpretation.

3.14 It should be noted that some of the geodiversity sites and associated Buffer Zones identified in the audit fall outwith the City boundary. They have been included in this SG to ensure consistency with the audit, but the provisions of the SG do not apply to the parts that fall outwith Glasgow.



## **4. PROTECTED SPECIES**

- 4.1 Most bird species and a wide range of other wild animals and plants have general protection from deliberate damage or harm under the law. In addition to this, some species, such as otters, bats and great crested newts have special protection from disturbance and harm under European legislation, and are known as European Protected Species (EPS). A number of species, such as pine marten, water vole and badger are protected under domestic legislation. Whilst not currently present in Glasgow, there are populations of pine marten and great crested newt within range of the City.
- 4.2 The species referred to in this guidance as species with special protection are as follows:
- a) European Protected Species (protected under Schedule 2 (animals) and 4 (plants) of the Habitats Regulations 1994 (as amended);
  - b) Animals and plants listed on Schedules 1, 5 and 8 (respectively) of the Wildlife and Countryside Act 1981 (as amended);
  - c) Badgers.
- 4.3 There is a presumption against development which would have an adverse effect on a protected species, either directly, indirectly or cumulatively. This may include impact on the habitat of a protected species (e.g. a badger's foraging habitat), including fragmentation or isolation, or other activities that result in

disturbance. Examples of development activities that could have an impact on protected species commonly found in Glasgow are shown in Table 2.

- 4.4 Where appropriate, mitigation could be used to ensure no adverse effect on protected species. To meet legal requirements, it is important that the mitigation is well designed and properly implemented to ensure it is effective.
- 4.5 The presence on, or near, a site with protected species is a critical consideration in preparing development proposals and in subsequent decisions on planning applications. Their presence rarely imposes an absolute block on development, however, it is important that the presence of a protected species, and its potential implications, is considered at as early a stage as possible, ideally before land is bought and a planning application made. All required surveys must be carried out prior to any form of site disturbance including ground investigation works and clearance. Mitigation measures will often be necessary and this can affect the design, layout and timing of the works. A licence from SNH will be needed for works which would constitute an offence involving species with special protection (see Figure 2 and Annex D of this SG for more details on licensing). Note that a licence may still be needed for works which do not need a planning application.



<u>Examples of Development Activities</u>	<u>European Protected Species</u>	<u>UK Protected Species</u>
Developments adjacent to or affecting waterbodies and other watercourses	<ul style="list-style-type: none"> <li>• Otter</li> <li>• Great Crested Newt</li> </ul>	<ul style="list-style-type: none"> <li>• Water Voles</li> <li>• Breeding Birds (such as Kingfisher)</li> </ul>
Barn and rural building conversions (especially unoccupied, stone-built buildings)	<ul style="list-style-type: none"> <li>• Bats*</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding Birds (such as Swallow, House Martin, Starling, House Sparrow and Barn Owl)</li> </ul>
<ul style="list-style-type: none"> <li>- Alterations (or demolitions) to the roof spaces of buildings in particular churches/chapels, institutions, schools</li> <li>- Development affecting caves, mines, tunnels, cellars and exposed rock faces, bridges, culverts, chimneys, kilns and ice houses and/or any other structures within 200m of water or woodland</li> </ul>	<ul style="list-style-type: none"> <li>• Bats</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding Birds (such as Swift, Swallow, House Martin, Starling, House Sparrow and Barn Owl)</li> </ul>
Developments affecting woodland, hedgerows, lines of trees and scrub	<ul style="list-style-type: none"> <li>• Otter</li> <li>• Bats</li> </ul>	<ul style="list-style-type: none"> <li>• Badger</li> <li>• Breeding Birds</li> </ul>
Developments affecting old and veteran trees and trees with a girth over 1.5m or containing obvious holes including any felling or lopping	<ul style="list-style-type: none"> <li>• Bats</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding Birds (such as Barn Owl)</li> </ul>
Developments affecting derelict land, brown-field sites, railways and land adjacent, grassland and allotments	<ul style="list-style-type: none"> <li>• Bats</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding Birds (such as Barn Owl)</li> <li>• Water Voles (<i>parts of North East Glasgow</i>)**</li> </ul>
Developments affecting quarries, cliff faces and gravel pits	<ul style="list-style-type: none"> <li>• Bat</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding Birds (such as Peregrine Falcons, Sand Martins)</li> </ul>
Developments (such as Wind Farms) affecting open farmland, moorland and forestry sites in hilly, upland, exposed areas	<ul style="list-style-type: none"> <li>• Bats</li> <li>• Otters</li> </ul>	<ul style="list-style-type: none"> <li>• Badger</li> <li>• Breeding Birds</li> <li>• Migrating Birds (such as Redwing)</li> </ul>
Developments affecting grassland in parks, road verges and gardens.		<ul style="list-style-type: none"> <li>• Water Voles</li> </ul>
Quay Wall renovation	<ul style="list-style-type: none"> <li>• Otter</li> <li>• Great Crested Newt</li> </ul>	<ul style="list-style-type: none"> <li>• Water Voles</li> <li>• Breeding Birds (such as Sand Martins)</li> </ul>



## Table 2. Protected Species and Development Activities

\* The Bat Conservation Trust provides further information on bats and buildings - [http://www.bats.org.uk/pages/bats\\_and\\_buildings.html](http://www.bats.org.uk/pages/bats_and_buildings.html)

\*\* Some areas in the northeast of Glasgow are home to water vole populations which, unusually for the species, are entirely unconnected to any water body. As such the potential presence of water voles should be considered for any development in this part of the city affecting derelict land, brown-field sites, grassland or allotments etc. For more information, or if you are unsure if water voles may be affected by any development proposal, please contact either Glasgow City Council's Land & Environmental Services or the local office of SNH. See Case Study 1.

Note: This table is not intended to provide an exhaustive list of development types that may affect protected species. The potential for protected species to be present on site should be considered as part of initial survey work.

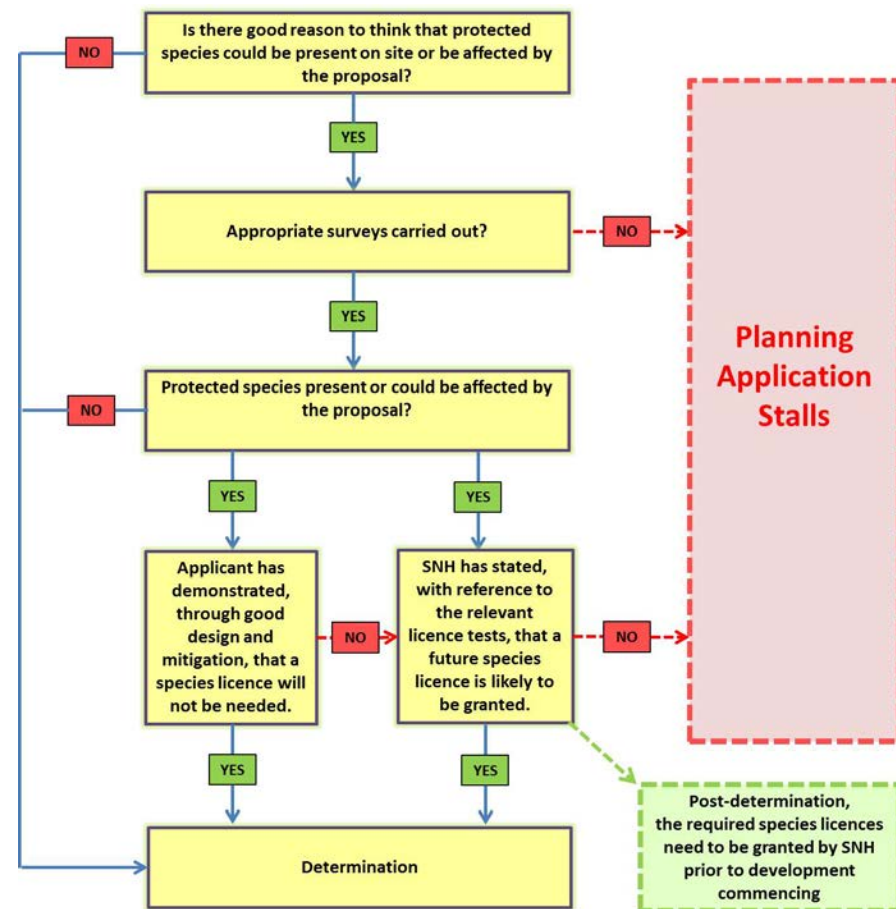


4.6 It is vital that adequate survey work is carried out at the relevant time in relation to determining the presence or absence of these species (see Section 2 and Annex B for more details on survey work requirements). Applicants will usually need to seek expert ecological advice at an early stage to determine the likely presence of protected species and the likely impact on them of any proposed development. Examples of development activities, together with illustrative protected species that may be affected, is provided in Table 2. If the presence of a protected species is suspected, the applicant shall inform the Council. Where protected species, or their places of foraging/rest/shelter, will be affected by a development proposal, mitigation and management proposals for the species concerned shall be included with any planning application (see Section 6).

4.7 Where places regularly used by European Protected Species (in Glasgow, currently bats and otters) are on or near to a proposed development site, it must be demonstrated, to satisfaction of the planning authority, that either these will not be affected by the development proposal or, where this is not possible, that the necessary SNH licenses are likely to be granted when applied for. The planning authority must be satisfied, after consultation with SNH, that a future species licence is likely to be granted prior to granting any consents.

4.8 It should be noted that, where a licence is required, the granting of planning permission does not mean that development can proceed. The required species licences need to be granted by SNH prior to development commencing.

**Figure 2. Protected Species – Providing the Right Information**





## Case Study 1: Water Voles

### Water vole and the law (SNH)

Since 1998, the water vole has received legal protection through its inclusion on Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), in respect of Section 9(4) only. This means that the water vole's places of shelter or protection are protected, but not the animals themselves. Recently the Nature Conservation (Scotland) Act 2004 enhanced this protection by inclusion of the term 'recklessly' in the offences quoted below. Furthermore, the current partial protection afforded this species is under wider review and may be extended in future. At present it is an offence to intentionally or recklessly:

- a) Damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection, and;
- b) Disturb water voles while they are using such a place.

### Water voles in Glasgow

Glasgow has always been a stronghold for water voles within the Central Belt with populations recorded in wetlands, including ditches, marshes, ponds, rivers and canals. In 2008, water voles were discovered living away from water and since then large populations have been recorded in the east end of the city, living in long grassland in parks, road verges, gardens and derelict land. These terrestrial water voles are termed fossorial (mole-like), as they spend more time underground. This behaviour in an urban environment is unique and the population is of national significance.

### Water voles and development (based on Strachan, R (2004))

An ecological appraisal is required as a first step where any protected species might be affected by development.

The following options are available within the planning process when water voles appear at proposed development sites (see also Mitigation Hierarchy, Section 6)

- a) Accommodate the water voles *in situ* and maintain or enhance conditions that support them (planned design to avoid impact);
- b) Accommodate voles on-site, but exclude them from development areas (planned mitigation by displacement/exclusion); and
- c) Physically transfer voles to another suitable site (planned mitigation by translocation).

In line with the mitigation hierarchy, making alterations to plans to avoid or minimise impacts is the preferred option and has the added benefit of avoiding increased costs associated with providing mitigation.

Even if surveys do not detect the presence of water voles it cannot be assumed that the habitat is unfavourable. If water voles are present within 2km of the site there is a high likelihood that water voles will use suitable habitat as a dispersal pathway. Therefore, active management to exclude water voles in the form of grass cutting must be maintained.

If water voles are present, a licence must be obtained from SNH and a water vole management strategy must be agreed by the developer (and their ecological consultant) with SNH, prior to the determination of the planning application.



In view of the population dynamics and dispersal behaviour of water voles, it is recommended that individual colonies cannot be viewed in isolation. Instead, a strategy that considers a number of nearby populations together is, realistically, the only way likely to ensure long-term persistence.

The basic principles for conserving water voles can be summarised thus:-

- a) Ensuring habitat connectivity exists between individual colonies
- b) Maintenance of abundant suitable vegetation (including the management of trees to avoid excessive shading)
- c) Minimising the opportunity for mink colonisation

It should be noted that mitigation measures may need to be in place prior to any works on site.

#### **Further reading**

The Water Vole Mitigation Handbook and other information is available at:

Scottish Natural Heritage

<http://www.snh.gov.uk/about-scotlands-nature/wildlife-and-you/water-voles/mitigation/>

<http://www.snh.org.uk/publications/on-line/wildlife/voles/law.asp>

<http://www.snh.gov.uk/about-scotlands-nature/wildlife-and-you/water-voles/advice-for-developers-and-planners/>

#### *Local Biodiversity Action Plan (LBAP)*

- 4.9 New development shall be designed, wherever appropriate, to help conserve and enhance populations of LBAP ([www.glasgow.gov.uk/biodiversity](http://www.glasgow.gov.uk/biodiversity)) priority species and priority habitats (reference should be made to Glasgow Biodiversity Audit

– contact [LesBiodiversity@glasgow.gov.uk](mailto:LesBiodiversity@glasgow.gov.uk)), or to protect and enhance valuable LBAP habitats. See also Section 5: Enhancing Biodiversity. There is a presumption against development which would have an adverse affect, either directly or indirectly, on a priority species or habitat, unless that impact can be satisfactorily mitigated.



## **5. ENHANCING BIODIVERSITY**

5.1 The City Development Plan promotes a Placemaking approach to new development, intended to deliver benefits for people and nature. Within this context, the CDP takes a broad approach to conserving and enhancing nature which takes into account ecosystems and natural processes, as well as conserving designated or protected sites and species.

5.2 Development shall not result in a loss of biodiversity or habitat connectivity. Wherever possible, development shall enhance biodiversity and/or habitat connectivity. New developments shall aim to incorporate existing habitats, enhance and expand them and/or help create new habitats as well as enhancing the ecosystem services that the development site currently supports, or could support. This can involve protecting and incorporating existing habitat features such as hedges, trees, ponds, streams, wetlands and even derelict areas into plans. These can be expanded and enhanced (such as by provision of bat and bird boxes, planting native species, green roofs etc) as part of the development proposal. Sustainable Urban Drainage Systems (SUDS) require to be provided to support most new developments, and the SG on the Water Environment indicates that SUDS features shall be designed with a view to helping meet the CDP's requirements for enhancing biodiversity, access to open space and the provision of sustainable travel routes as part of a multifunctional green network. SUDS ponds, planted with native vegetation, can, for example, provide a habitat for a number of species as well as attractive open space. Habitat and

species surveys shall be carried out prior to any form of site disturbance including ground investigation works.

5.3 Development shall also be designed to ensure that ecological links between habitats are not broken, but are provided, or are repaired/enhanced, where possible as part of a green network. It is important that site surveys inform this understanding, including how animals move in and out of the site.

5.4 If a plant or animal can move between different habitat patches which are not physically linked, then these patches are functionally connected. Functional connectivity can be difficult to identify – it is necessary to know what sort of landscapes a particular species could be expected to move through, and for what distance, and then apply this information to what is, or could be, on the ground by way of land-use. An informed approach to site survey (see Section 2 of this SG) can help.

5.5 Table 3 sets out how biodiversity can be enhanced within certain developments. Provision will be expected to be made for the management and maintenance of features intended to deliver enhanced biodiversity.



### **Case Study 2 : Ruchill Park Sustainable Urban Drainage System (SUDS)**

The construction of a new school and development of the Ruchill Hospital site required the construction of a SUDS within Ruchill Park. The aim was to create a SUDS which would make a positive contribution to biodiversity and this has been achieved. An area of previous amenity grass is now three wildlife rich ponds. The water flows first into a settlement pond where any sediment in the runoff settles out before the water progresses to the other ponds. The water eventually discharges to the Forth & Clyde Canal. The ponds were planted up with aquatic vegetation sourced from other local ponds. Edge vegetation and wildflowers were planted around the ponds. There is a pond dipping platform for the pupils in the school to use as part of outdoor learning (curriculum for excellence).

The Ruchill Park SUDS is now a well-established wildlife rich area which has added value and interest to the Park.



**Table 3. Examples of Enhancing Biodiversity in Different Development Types/Locations**

Development	Opportunities for Enhancing Habitat and Wildlife Interests
<b>Residential/Business/Mixed Use</b>	<ul style="list-style-type: none"> <li>• Incorporate and manage existing habitat in open space requirement</li> <li>• Enhance wildlife opportunities in existing open spaces</li> <li>• Design for natural SUDS and Integrated Green Infrastructure</li> <li>• Create a network of easily maintainable, multifunctional open spaces, to include, eg, wildflower grasslands, ponds</li> <li>• Incorporate bat and bird boxes in design</li> <li>• Landscape with locally appropriate native species</li> <li>• Green roofs</li> <li>• Green/living walls</li> </ul>
<b>City Centre</b>	<ul style="list-style-type: none"> <li>• Naturalise existing open spaces and deliver new, multi-functional open spaces</li> <li>• Green roofs</li> <li>• Green/living walls</li> <li>• Planting of street-trees</li> <li>• Incorporate bat and bird boxes in design</li> </ul>
<b>Open Space and Recreation</b>	<ul style="list-style-type: none"> <li>• Link to existing green corridors and design for multifunctionality</li> <li>• Incorporate green infrastructure into on and off-road access routes</li> <li>• Plant hedges and trees, create wetlands</li> <li>• Design for longer grass and wildflower grassland</li> </ul>
<b>Road schemes</b>	<ul style="list-style-type: none"> <li>• Mitigation measures to include under passes for otter, badger crossings, etc</li> <li>• Create new habitats eg semi-natural grassland, woodland or ponds</li> <li>• Design for natural SUDS</li> <li>• Creation of otter holts where appropriate</li> <li>• Conserve, and provide access to, geological exposures</li> <li>• Landscape and screen with locally appropriate native species</li> <li>• Design in bat bricks, bird boxes, etc on bridges</li> </ul>



<b><u>Development</u></b>	<b><u>Opportunities for Enhancing Habitat and Wildlife Interests</u></b>
<b>Conversions of rural buildings</b>	<ul style="list-style-type: none"> <li>• Install barn owl boxes or provide nest spaces</li> <li>• Install swift box</li> <li>• Incorporate other bird and bat boxes in the design</li> <li>• Green roofs</li> </ul>
<b>Large scale energy (eg wind or solar farms)</b>	<ul style="list-style-type: none"> <li>• Hydrological management for restoring or maintaining bogs (such as drain blocking)</li> <li>• Restore appropriate habitats where possible</li> <li>• Incorporate and manage existing habitat, species and geological exposures on unworked land, linking to surrounding networks</li> </ul>



## 6. MITIGATION

6.1 The Mitigation Hierarchy shall apply when considering how to manage the risks of adverse impacts on wildlife and habitats. In line with the Mitigation Hierarchy (Figure 3), the Council expects that development proposals be designed to prevent or avoid impacts. If this is not possible, then development may be acceptable if appropriate measures are put in place to minimise and reduce any unavoidable impact, such as compensatory planting or habitat provision (this may also be required in conjunction with efforts to reduce impact). If adverse impacts cannot be avoided, reduced and/or compensated, to the satisfaction of the planning authority, development proposals shall be refused.

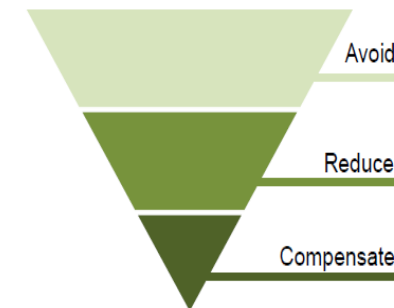
6.2 On sites where wildlife features are retained, or new habitats and features are created, appropriate on-going management shall be put in place to ensure long-term effectiveness. In such cases, a mitigation plan shall be produced and submitted as part of the planning application. The Mitigation Plan:

- a) shall detail the mitigation proposed;
- b) shall identify specific actions required for good management, including details of the phasing of the works;
- c) shall make provision for monitoring the mitigation measures over an appropriate period of time to assess the success of the measures;

- d) may be the subject of a planning agreement or condition relating to any planning permission;

6.3 Where places used by protected species will be affected by a development, detailed mitigation proposals are likely to be required in order to secure the necessary licences to allow the development to proceed (see Annex D). Depending on what type of mitigation is proposed, it may be that there are certain times of the year when mitigation activities are inappropriate – the ecological mitigation calendar (Table 4) provides some general guidance.

**Figure 3. The Mitigation Hierarchy**





**Table 4. Ecological Mitigation Calendar** (a version can be found on SNH's [website](#))

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Badgers	Construction of artificial setts only (no disturbance to existing setts)							Exclusion for setts and destruction			Artificial sett	
Bats	Maternity roost works until mid-May				No maternity roost works			Maternity roost works from mid-Sept				
	Hibernation period		Hibernation roost works from mid-March								Hibernation period	
Birds	Clearance works		Nesting season – avoid ALL clearance works without a breeding bird survey					Clearance works				
Great Crested Newt	Pond management only		Both terrestrial and aquatic trapping possible				Terrestrial trapping only			Pond management only		
Otters	No seasonal constraints, however restrictions are likely during breeding season											
Water Vole	Avoid works in habitat		Trapping and exclusion		Avoid works (breeding season)				Trapping and exclusion		Avoid works in habitat	
Fish	Mitigation for the protection of water courses is required at all times of the year. Mitigation for particular species will need to be timed so as to avoid their breeding season - this varies between species											
Pine Marten	Work in areas of pine marten habitat and dens		Avoid all work in pine marten habitat								Work in areas of pine marten habitat and dens	

	Recommended period for mitigation
	Sub-optimal period for mitigation
	Mitigation not possible

*Note: This mitigation calendar should be used as a reference guide only with advice being sought from an experienced/ qualified ecologist as site and project specific circumstances may alter seasonal windows*



## **7. SITES DESIGNATED FOR THEIR LANDSCAPE IMPORTANCE**

7.1 SPP (paragraph 197) states that the purpose of areas of local landscape value should be to:

- a) safeguard and enhance the character and quality of a landscape which is important or particularly valued locally or regionally; or
- b) promote understanding and awareness of the distinctive character and special qualities of local landscapes; or
- c) safeguard and promote important local settings for outdoor recreation and tourism.

7.2 Figure 15 of CDP Policy CDP7 illustrates the extent of sites designated for their landscape importance as Sites of Special Landscape Importance in City Plan 2. These sites were identified

following a landscape assessment of the City undertaken in 1999. Policy CDP7 states indicates that the Council will review “existing site boundaries and justifications” and it is the Council’s intention that a landscape character assessment of the City will be undertaken during the Plan period. This would help identify individual sites that are important components of the wider landscape character of different parts of the City, and that should be protected from inappropriate development. In the meantime, policy CDP 7, and this SG, will apply to existing Sites of Special Landscape Importance, as shown on the Council’s [on-line mapping resource](#).

7.3 The Council will not support development proposals that would have a significant adverse impact on the special character or qualities of a local landscape site unless applicants can demonstrate that the proposed development will enhance the character or qualities of the site.



## 8. TREES, WOODLANDS AND HEDGEROWS

- 8.1 Paragraph 194 of SPP indicates that the planning system should “protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation or landscape value”.
- 8.2 Scottish Ministers’ [Policy on Control of Woodland Removal](#) was published in 2009, and signals a strong presumption in favour of protecting Scotland’s woodland resources, unless removal will achieve significant and clearly defined additional public benefits. For woodland removal associated with development, it is expected that compensatory planting will normally be undertaken at the developer’s expense (see SPP para 218) – this shall be sensitively designed, located and managed to provide a range of benefits including enhanced biodiversity and air quality and climate change mitigation and adaptation.
- 8.3 The Council expects that:
- a) all trees, woodland or hedgerows affected by a development proposal have been (within the recent past), or will be, surveyed for protected species prior to the granting of planning permission, licensing (see Annex D of this SG) or advance works;
  - b) fragmentation or isolation of habitats as a result of new development shall be avoided wherever possible; and

- c) where individual trees, groups of trees, woodlands or hedgerows would be lost as a result of development, compensatory planting (where appropriate, native species will be preferred) will be provided by the applicant, either as part of the overall scheme or elsewhere in the vicinity (this may require a legal agreement). Compensatory planting (see paragraph 8.14) shall be sensitively designed, located and managed to provide a range of benefits.
- d) tree Surveys (to BS 5837:2012) will be carried out prior to the design stage to ensure that existing woodland/tree cover is taken into account in the design process. All trees over 75mm diameter (100mm in woodland) require to be surveyed (as per paragraph 8.10 of this SG).

### *Ancient, Long Established and Semi-natural Woodland*

- 8.4 Ancient, long-established and semi-natural woodland is identified by SNH as an important resource that should be protected and enhanced. The vast majority of Glasgow’s ancient, long established and semi-natural woodland are broad leaved/mixed woodland and wet woodland habitats. They are identified on the Council’s [on-line mapping resource](#). (Note that the responsibility for designating Ancient, Long-Established and Semi-Natural Woodlands lies with [SNH](#), and they caution that the Ancient Woodland Inventory is not definitive and should be used with care. As such, the site boundaries shown on the on-line mapping should be treated as indicative, and development sites in or adjacent to these boundaries should be examined (see para 8.6) to assess their value as Ancient, Long Established and Semi-natural Woodland.)



8.5 There is a presumption against development which would have an adverse effect, either directly or indirectly (eg through drainage), on a site designated as an Ancient, Long Established and Semi-natural Woodland, unless it can be clearly shown that:

- a) the social or economic benefits to be gained from the development are of city-wide importance and clearly and significantly outweigh the conservation interest or public access benefit of the site – in such circumstances, suitable mitigation shall be provided in the form of planting, access and/or other compensatory provision;
- b) the integrity of the woodland would not be compromised.

8.6 The Council expects that proposals in, or near, an ancient, long established or semi-natural woodland will have been subject to consultation with, and approval from, the Central Scotland Conservator, Forestry Commission Scotland. A Tree Survey will be required, and shall be undertaken to conform to *BS 5837:2012 - Trees in Relation to Construction*. Proposals for enhancing the condition of Ancient, Long Established and Semi-natural Woodland, including their resilience to climate change, and/or the removal of unsympathetic structures, are likely to be viewed favourably by the Council, subject to consideration against other CDP policies and associated SG.

#### *Tree Preservation Orders*

8.7 Tree Preservation Orders (TPOs) can be made in the interest of amenity and/or where a tree, group of trees or woodland is of

cultural or historical significance. It is an offence for any person, in contravention of a TPO, to remove or damage a tree without the consent of the Council. TPOs in Glasgow are identified in the Council's [on-line mapping resource](#). There is a Council policy to treat trees, woodland and hedgerows, which are on Council owned land, as if they are covered by a TPO. Trees, woodland or hedgerows protected by a TPO, or as if covered by a TPO (Council Owned Land), must not be removed without the explicit written consent of the Council. The removal of any tree protected by a TPO, or as if covered by a TPO (Council Owned Land), or serious damage to it, should only occur in exceptional circumstances, for example, where the tree, or part of the tree, is a danger to public safety or is diseased, and only then on the understanding that appropriate replacement planting takes place, with the number, size, species and location of new trees to be agreed with the Council.

8.8 It should be noted that the felling of trees which are not protected by a Tree Preservation Order, are not within a Conservation Area or are not on Council owned land, may, in the absence of a planning permission providing for their removal, require a felling licence. Developers should consult Forestry Commission Scotland. Where specific tree felling is identified and subsequently approved as part of a detailed planning permission, no felling licence is required.

8.9 All development proposals should take into account trees protected by TPO, or as if covered by a TPO, during the design stage. This should include a detailed tree survey (conforming to *BS 5837:2012 - Trees in Relation to Construction*). The Council



will produce, for consultation, a Guidance Note: *Trees and Development* to provide further detailed guidance.

*Other Trees, Woodland and Hedgerows*

- 8.10 The Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006, states that “it shall be the duty of the planning authority to ensure, wherever it is appropriate, that in granting Planning Permission for any development adequate provision is made, by the imposition of conditions, for the preservation or planting of trees” (section 159). Where development is acceptable in principle, proposals should retain trees, woodland and hedgerows, where they are of landscape, local amenity or biodiversity value – this should be based on a Tree, Woodland and Hedgerow Survey to conform to *BS 5837:2012 - Trees in Relation to Construction*. Surveys should be carried out by a competent arboriculturalist (or forester, in relation to woodlands). Issues for the survey to consider should include:

- a) the amenity value of trees, woodland and hedgerow for the site and surrounding area, including the Green Network;
- b) the ecosystem value of the trees;
- c) potential impact on trees on adjacent land;
- d) other content as may be specified by the Council’s Landscape, Biodiversity or Woodlands Teams

- 8.11 Proposed tree removals or retentions should be submitted for consideration as part of the planning application. There will be a presumption in favour of retaining all healthy and structurally

sound trees, woodland and hedgerows on development sites, including those that form a part of a wider green network (see SG6: Green Belt and Green Network). Removal of trees, woodland and/or hedgerows should be undertaken with recognition of the habitat role they provide for animals and, as such, an appropriate survey should be undertaken to ensure no protected species are disturbed prior to any works commencing. Table 4 helps inform when mitigation works might be best undertaken and Table 1 provides information on appropriate timings of ecological surveys.

- 8.12 In designing new development, account should be taken of how the completed development will function, with a view to reducing impact on the tree, woodland or hedgerow resource in the longer term. For example:

- a) the likely height, and spread, at maturity, of trees to be retained on site (or that may exist on adjacent sites) should be considered when locating buildings and structures; and
- b) residential back gardens should not back immediately onto woodland to avoid situations where casual dumping may impact on the woodland resource.

- 8.13 Development proposals shall make provision for the proper management of trees on site during all stages of development, following the guidance set out in *BS 5837:2012 Trees in Relation to Construction*. Sufficient spacing should be left between proposed structures and trees to allow for future growth and adequate protection of trees during the construction phase. There should be no works, including changes to existing ground



levels, within the Root Protection Area of any such tree. Damage to roots, compaction of ground and direct damage to the above-ground tree structure all require to be considered. The non-statutory Guidance Note: *Trees & Development* will provide further detailed guidance.

*Mitigation for Tree and Hedgerow Loss*

- 8.14 Where it is not possible to retain all trees, woodland and hedgerows on development sites, mitigation will be required. Mitigation should reflect the varied roles of trees, woodland and hedgerow in the City environment, including place-setting,

biodiversity and green network considerations, carbon storage and water, air quality and noise management. These are important considerations in bringing forward mitigation proposals, and should be addressed as part of a placemaking approach. Mitigation planting within the development site should be prioritised but, where this is not possible, off-site mitigation should be undertaken. The type, nature and location of mitigation proposals should be guided by the existing resource and by policies CDP 1, 6, 7 and 8 of the City Development Plan, associated Supplementary Guidance and other considerations, such as the Open Space Strategy and LBAP. The Guidance Note *Trees & Development* will provide further advice.



## Annex A: DEVELOPMENT AND THE ROLE OF SCOTTISH NATURAL HERITAGE

SNH welcome consultations (including pre-application consultations) in relation to certain development proposals (see <http://www.snh.gov.uk/planning-and-development/approach/>). SNH's [service statement](#) sets out the service Planning Authorities and other consenting authorities can expect from SNH in relation to planning and development proposals. SNH have produced a checklist that sets out when planning authorities should consult them – the considerations currently relevant to Glasgow are replicated below for information, but the checklist can be updated on occasion and reference should be made to the SNH [website](#) to confirm the most up-to-date position. **Darker shaded boxes denote statutory consultations.**

<b>Nature</b>	✓
<b>Development affecting European sites: Special Protection Areas (SPAs) , Special Areas of Conservation (SACs) and candidate sites</b> ( <a href="#">Guidance on Natura Sites and Habitats Regulations</a> )	<input type="checkbox"/>
<b>Development affecting Sites of Special Scientific Interest (SSSIs)</b>	<input type="checkbox"/>
<b>Cases that involve the winning and working of peat for commercial purposes</b>	<input type="checkbox"/>
Development affecting protected species where the mitigation measures proposed by the applicant are not sufficient to avoid an offence under the relevant legislation. Note: Do not consult SNH prior to surveys being carried out or (where relevant) mitigation plans being submitted unless a licence is required for your survey ( <a href="#">Guidance on Protected Species and Planning</a> )	<input type="checkbox"/>
Development affecting <a href="#">Geological Conservation Review</a> sites (GCR sites)	<input type="checkbox"/>
Development that could adversely affect priority peatland and carbon rich soil (category 1 and 2 in Scotland's <a href="#">Carbon and Peatland Map</a> (2015))	<input type="checkbox"/>



<b>Environmental Impact Assessment</b>	✓
Scoping requests and environmental statements received in connection with a development proposal that requires an environmental impact assessment (EIA) Note: In practice we are also consulted on the associated development proposal	<input type="checkbox"/>
<b>Other</b>	✓
Marine licence applications	<input type="checkbox"/>
Licences for exploration of, production from and decommissioning of oil and gas fields within the 12 nautical mile territorial sea limit	<input type="checkbox"/>
Hazardous substances consents and cases that could have significant repercussions on major accident hazards	<input type="checkbox"/>



## Annex B: INITIAL SITE APPRAISAL CHECKLIST

This checklist can help when undertaking a site appraisal. It will help give an indication of the ecological data that will be required for a development site, as well as highlighting the important designations, habitats and species to be considered during the design and planning process. In some cases further survey requirements may be identified following consultations with Council staff and/or SNH.

1. Consideration	Tick if it Applies	If Yes then:	Done
Does the site include all or part of a statutorily designated site eg. SPA, SAC, SSSI, LNR?	<input type="checkbox"/> Check	Consult Scottish Natural Heritage and Local Council for more information	<input type="checkbox"/> Check
Is there a nearby statutorily designated site eg. SPA, SAC, SSSI, LNR that may be impacted by the development?	<input type="checkbox"/> Check	Consult Scottish Natural Heritage and Local Council for more information	<input type="checkbox"/> Check
Does the site include all, or part of, or impact on, a nearby non-statutory designated site, eg a Local Site of Importance for Nature Conservation ?	<input type="checkbox"/> Check	Consult Local Council to determine under what circumstances, if any, development might be acceptable and the ecological data required.	<input type="checkbox"/> Check
Does all or part of the site form a wildlife corridor or 'stepping stone' linking two or more other areas of ecological value?	<input type="checkbox"/> Check	Assess ecological impact of development on the site and adjacent areas of habitat, and identify possible mitigation.	<input type="checkbox"/> Check
If No Then:			Done
Has a Phase 1 Habitat Survey been undertaken in order to help define the key habitats on site?	<input type="checkbox"/> Check	Consider undertaking a Phase 1 Habitat Survey at the earliest opportunity.	<input type="checkbox"/> Check



2. Does the site include any of the following habitats (Based on Phase 1 Habitat Survey):				
Mature trees (individual or small stands)?	<input type="checkbox"/> Check	Survey For	<ul style="list-style-type: none"> <li>• Bats</li> <li>• LBAP Species</li> <li>• Breeding birds</li> <li>• Lichens, mosses and liverworts</li> </ul>	<input type="checkbox"/> Check
		Check For:	<ul style="list-style-type: none"> <li>• Tree Preservation Orders</li> <li>• Conservation Area Designation</li> </ul>	
		Undertake:	<ul style="list-style-type: none"> <li>• Tree Survey (species, location, ground spread, age, height)</li> </ul>	
Woodland?	<input type="checkbox"/> Check	Survey For:	<ul style="list-style-type: none"> <li>• bats</li> <li>• breeding birds</li> <li>• pine marten</li> <li>• badgers</li> <li>• LBAP Species</li> <li>• Otters</li> <li>• Lichens, mosses and liverworts</li> </ul>	<input type="checkbox"/> Check
		Undertake:	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> <li>• Tree Survey</li> </ul>	
Hedges?	<input type="checkbox"/> Check	Survey For:	<ul style="list-style-type: none"> <li>• Determine if the hedge is of particular ecological value eg. Species rich</li> <li>• Breeding Birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		Undertake:	<ul style="list-style-type: none"> <li>• Tree Survey</li> </ul>	



Rivers, streams or wet ditches?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• otters</li> <li>• water voles</li> <li>• salmon</li> <li>• kingfisher</li> <li>• breeding birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Ecological Impact Assessment</li> <li>• Phase 2 Habitat Survey</li> </ul>	
Ponds, pools or lochs?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• Great Crested Newts</li> <li>• water voles</li> <li>• breeding birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> </ul>	
Wetland or bog?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• water voles</li> <li>• otters</li> <li>• breeding birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey on vegetated areas</li> </ul>	
Long/rough grassland	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• water voles</li> <li>• breeding birds</li> <li>• foraging areas for badgers</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> <li>• Ecological Impact Assessment</li> </ul>	



Bings/spoil tips/rock faces?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• Young's Helleborine (on wooded bings)</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey on vegetated areas</li> </ul>	
Brownfield?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• Invertebrates</li> <li>• water voles</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
Heath (Heather)?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> </ul>	
Buildings/Barns/bridges/quay walls?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• bats</li> <li>• barn owls</li> <li>• nesting birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
Scrub?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• breeding birds</li> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> </ul>	
Coastal sand, mudflat, lagoons or saltmarsh?	<input type="checkbox"/> Check	<i>Survey For:</i>	<ul style="list-style-type: none"> <li>• LBAP Species</li> </ul>	<input type="checkbox"/> Check
		<i>Undertake:</i>	<ul style="list-style-type: none"> <li>• Phase 2 Habitat Survey</li> <li>• Ecological Impact Assessment</li> </ul>	



## Annex C: INVASIVE NON-NATIVE SPECIES

- C.1 There are many species of non-native plants that have been introduced to Scotland over time which we enjoy in our gardens and countryside. Studies for the flora of Glasgow show that out of some 1560 species recorded as growing 'wild' in the city, more than half were non-native. However, a few non-native species are very invasive in the natural environment and cause serious problems. They can out-compete native species and result in serious damage to the environment, the economy and human health. In Glasgow, the most common of these Invasive Non-Native Species (INNS) are:
- a) Japanese knotweed (*Fallopia japonica*)
  - b) giant hogweed (*Heracleum mantegazzianum*); and
  - c) Himalayan balsam (*Impatiens glandulifera*).
- C.2 Invasive non-native animals may also be of concern, particularly aquatic species in watercourses.
- C.3 The legislation covering non-native species differs across the UK. In Scotland it was updated and amended in 2011 by the Wildlife and Natural Environment (Scotland) Act 2011. It is an offence to release, or allow to escape from captivity, any animal to a place

outwith its native range. It is also a potential offence, subject to the provisions in the legislation, for any person to plant, or otherwise cause to grow, any plant in the wild at a place out with its native range. It may be in developers interest to be able to show that they took reasonable steps and showed due diligence to avoid committing an offence (see <http://www.snh.gov.uk/protecting-scotlands-nature/nonnative-species/native-range/>).

- C.4 A common way in which invasive non-native species may be introduced to a development site is through soil contaminated with seed or root material. If a development is responsible for the introduction of an invasive non-native species, either to the site or to other areas, then the developer will have to remove the species and dispose of material appropriately.
- C.5 Japanese knotweed, giant hogweed and Himalayan balsam are regarded as controlled waste. Developers shall seek advice on their disposal by referring to the SEPA website, see [www.sepa.org.uk](http://www.sepa.org.uk) and [www.netregs.gov.uk](http://www.netregs.gov.uk). The Scottish Government has produced a Non-Native Species Code of Practice that will help those developing land that contains these plants to understand their legal responsibilities. For more information see: [www.scotland.gov.uk/publications/2012/08/7367](http://www.scotland.gov.uk/publications/2012/08/7367).



## Annex D: LICENSING REQUIREMENTS

D.1 If it is discovered that there are potential impacts on protected species that cannot be avoided through mitigation then a licence may be required before works can proceed. This is in order to prevent a possible offence being committed. Licences will only be granted if strict tests are met. SNH is responsible for the administration of most protected species licences in Scotland (except most marine species where Marine Scotland is the licensing authority). For some species, in specific circumstances, licences can be issued which allow:

- a) disturbance for the purpose of development; or
- b) disturbance for the purpose of survey and research.

D.2 After obtaining planning permission, the developer may need to apply for various types of licence regarding protected species before work can start on site. It is important to remember that planning permission does not affect or replace any need to obtain licences or permits required by other environmental protection legislation. A licence may be required for works that do not require planning permission, for instance, internal works to a building or those carried out under permitted development.

### Species Licensing – Points to Remember:

- a) Identify any needs for licensing as soon as possible – ensure you allow enough time in the project programme for the issuing of licences
- b) Check out the SNH web site for all the information needed at: [www.snh.gov.uk/protecting-scotlands-nature/species-licensing](http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing)
- c) Make sure the relevant licensing tests can be met for any protected species present

### *European Protected Species (EPS) and Licensing Requirements*

D.3 There are three strict legal tests which must all be passed before a licence can be granted. In summary they are:

- a) Test 1: that there is a licensable purpose. SNH provides more detailed guidance on [Test 1](#);
- b) Test 2: that there is no satisfactory alternative; SNH provides more detailed guidance on [Test 2](#); and
- c) Test 3: that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range (the qualified ecologist should be able to provide advice on this or alternatively seek advice from SNH).

D.4 SNH provides more detailed guidance on licensing and species licensing tests – see <http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing/forms-and-guidance/guidance/> and <http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing/>.



### *Water Voles*

- D.5 It is possible to licence activities that could affect water voles for social, economic or environmental reasons. This could cover a range of activities including development. However, it is important to note that licences may only be issued for this purpose provided that:
- a) the activity authorised by the licence will contribute to significant social, economic or environmental benefit; and
  - b) there is no other satisfactory solution.

### *Badgers*

- D.6 If you are planning any development works that could result in disturbance to badgers in their setts, or damage or obstruction to setts then you are likely to require a licence. Licences can be issued (for activities that would otherwise constitute an offence) under the Protection of Badgers Act 1992 (as amended) for the purpose of development. It is important to note that licences can only permit someone to 'interfere with a badger sett' for the purpose of development. It is not possible to licence removal, translocation or killing of badgers for the purpose of development.

- D.7 SNH provides more detailed guidance on badgers, development and licensing: <http://www.snh.gov.uk/protecting-scotlandsnature/species-licensing/mammal-licensing/badgers-and-licensing/dev/>

### *Birds*

- D.8 It is not possible to licence actions that would otherwise be an offence in relation to wild birds, for the purpose of development. Particularly where development is carried out during the breeding season, there could be a risk of damage to, or destruction of, nests or eggs, or disturbance to nesting birds. Because there is no development licensing purpose for wild birds, this means that any development that could result in these actions should not proceed until it is appropriate to do so. Developers should seek professional advice at an early stage in the process.
- D.9 SNH provides more detailed guidance on birds and development at: <http://www.snh.gov.uk/protecting-scotlandsnature/species-licensing/birdlicensing/development-houses/>



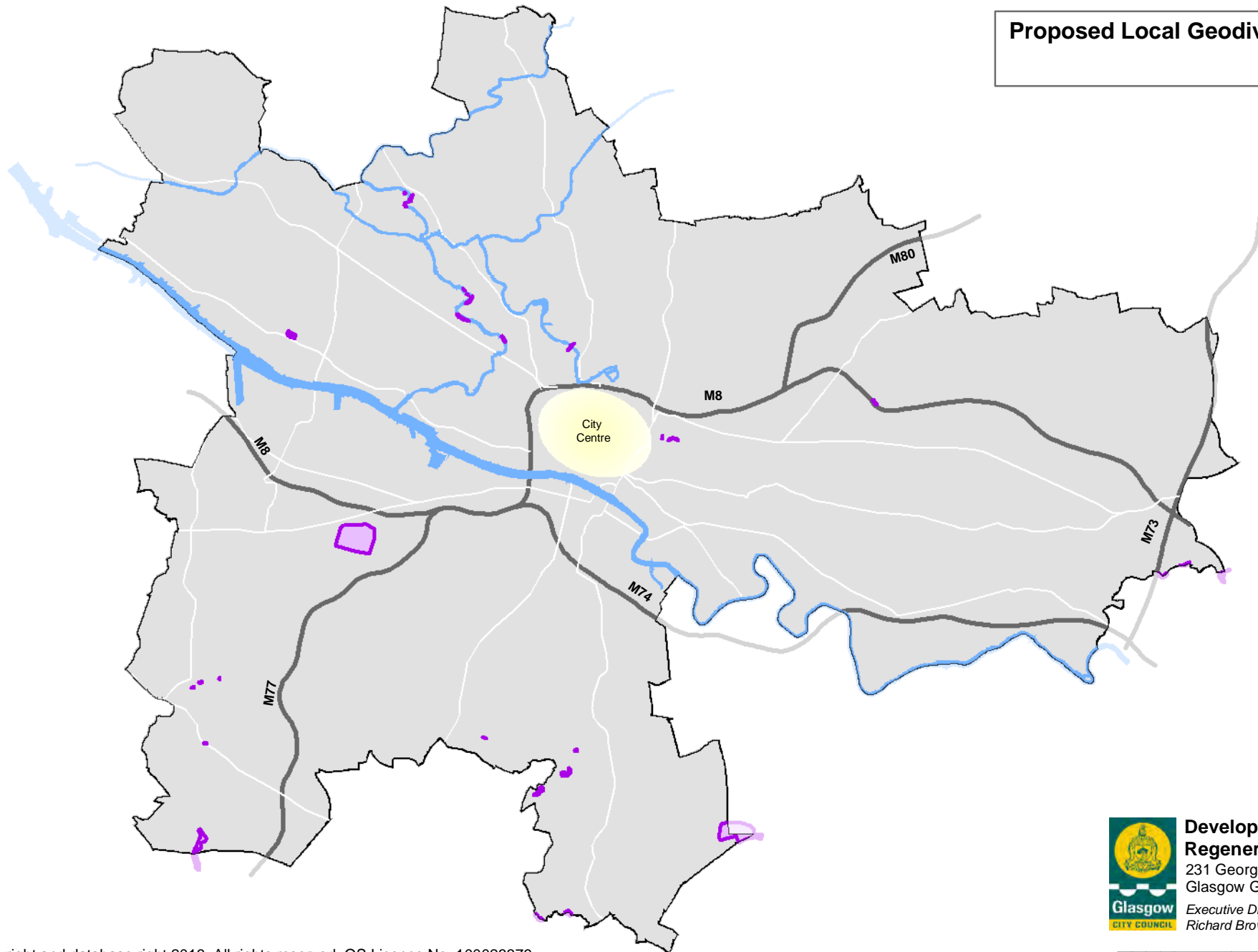
## **Annex E: USEFUL CONTACTS**

Glasgow Museums Biological Records Centre  
Glasgow Biodiversity Audit  
Glasgow Development Plan  
Scottish Natural Heritage  
Scottish Environmental Protection Agency

[biological.records@glasgowlife.org.uk](mailto:biological.records@glasgowlife.org.uk)  
[LesBiodiversity@glasgow.gov.uk](mailto:LesBiodiversity@glasgow.gov.uk)  
[developmentplan@glasgow.gov.uk](mailto:developmentplan@glasgow.gov.uk)  
<http://www.snh.gov.uk/>  
[www.sepa.org.uk](http://www.sepa.org.uk)



Proposed Local Geodiversity Sites



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**Development and  
Regeneration Services**  
231 George Street  
Glasgow G1 1RX  
**Glasgow**  
CITY COUNCIL  
Executive Director  
Richard Brown

0 0.5 1 2 3 4 km



## Proposed Local Geodiversity Sites

For full details see report: [A Geodiversity Audit of the City of Glasgow \(Whitbread and Arkley, 2013\)](#)

Shapefiles of the audit were supplied by British Geological Survey, and have been used to prepare the following maps. The boundaries identify:

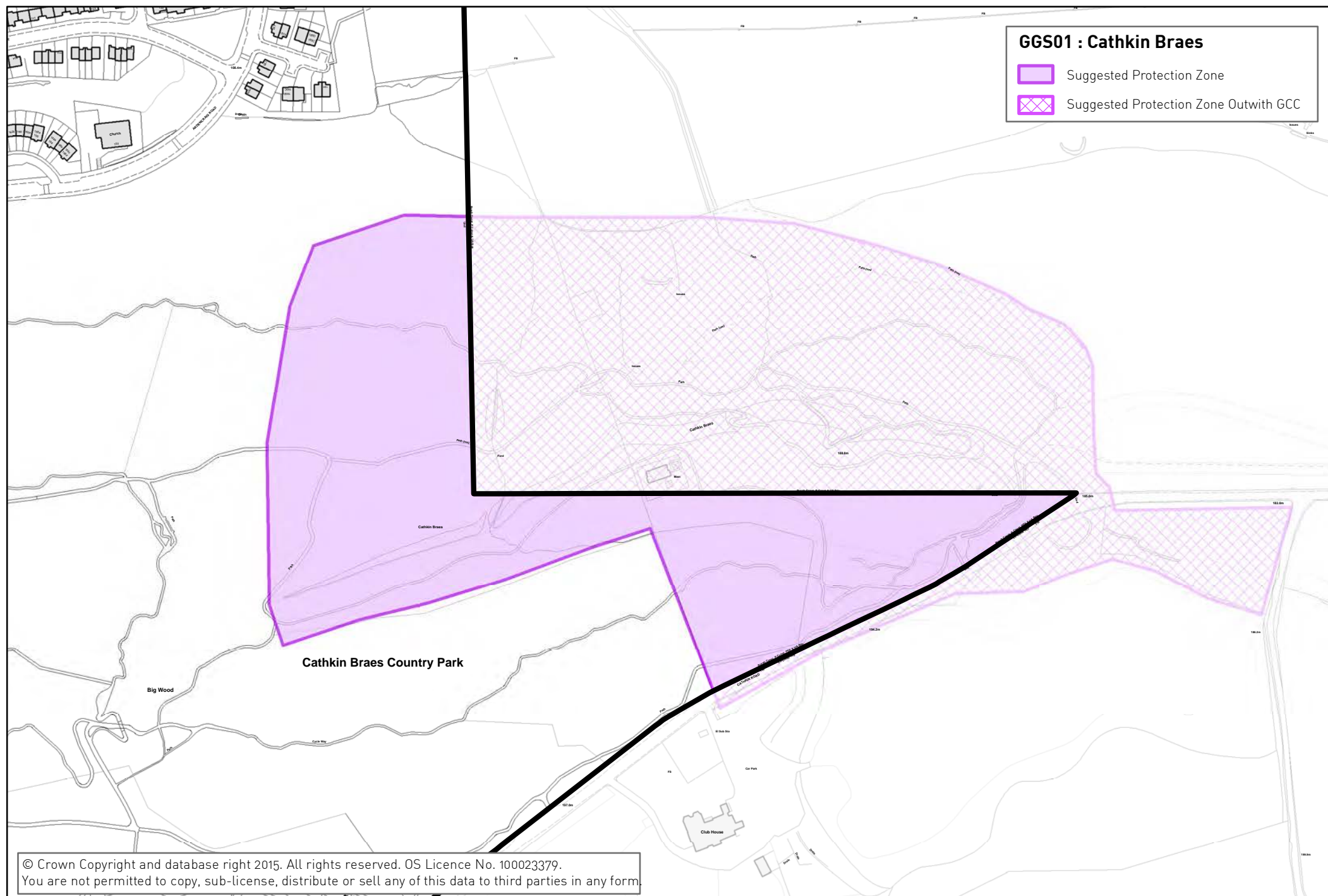
- Suggested Protection Zones - areas of bedrock exposure or extent of the landform feature constituting the geodiversity site and its immediate access; and
- Suggested Buffer Zones – areas identified as being required to protect access to, and viewpoints of, the site.

Some Protection and Buffer Zones identified by the audit fall outwith GCC Boundary, but have been included in this SG to ensure consistency with the audit.

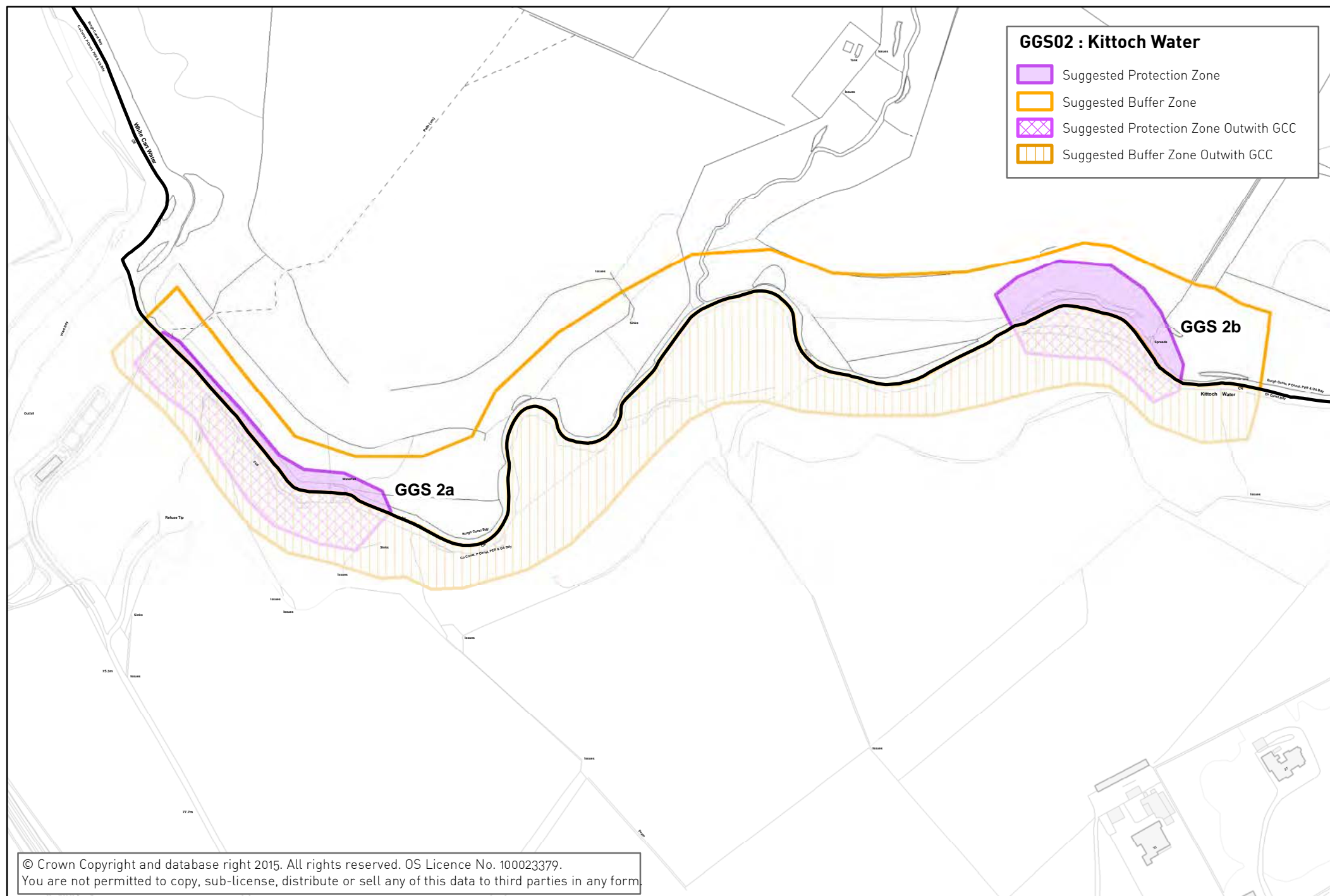
**Please note that the Supplementary Guidance does not apply to the parts of these zones which fall outwith Glasgow.**

Ref No	Geodiversity Site
GGS 1	Cathkin Braes
GGS 2	Kittoch Water
GGS 3	Levern Water – Househill Park
GGS 4	River Kelvin – Belmont Bridge
GGS 5	River Kelvin Botanic Gardens
GGS 6	Fossil Grove SSSI and Quarry
GGS 7	Nitshill Station Road Cutting
GGS 8	Linn Park – Holmwood House
GGS 9	Linn Park – Linn Waterhill
GGS 10	River Kelvin – Dawsholm Park
GGS 11	Possil Road Aqueduct
GGS 12	Merrylee Road
GGS 13	Waulkmill Glen SSSI
GGS 14	Necropolis
GGS 15	M8 Gartcraig Road Bridge
GGS 16	Newlands Glen
GGS 17	Court Knowe Quarry
GGS 18	Bellahouston Park
GGS 20	Househill Park, Fossil Tree

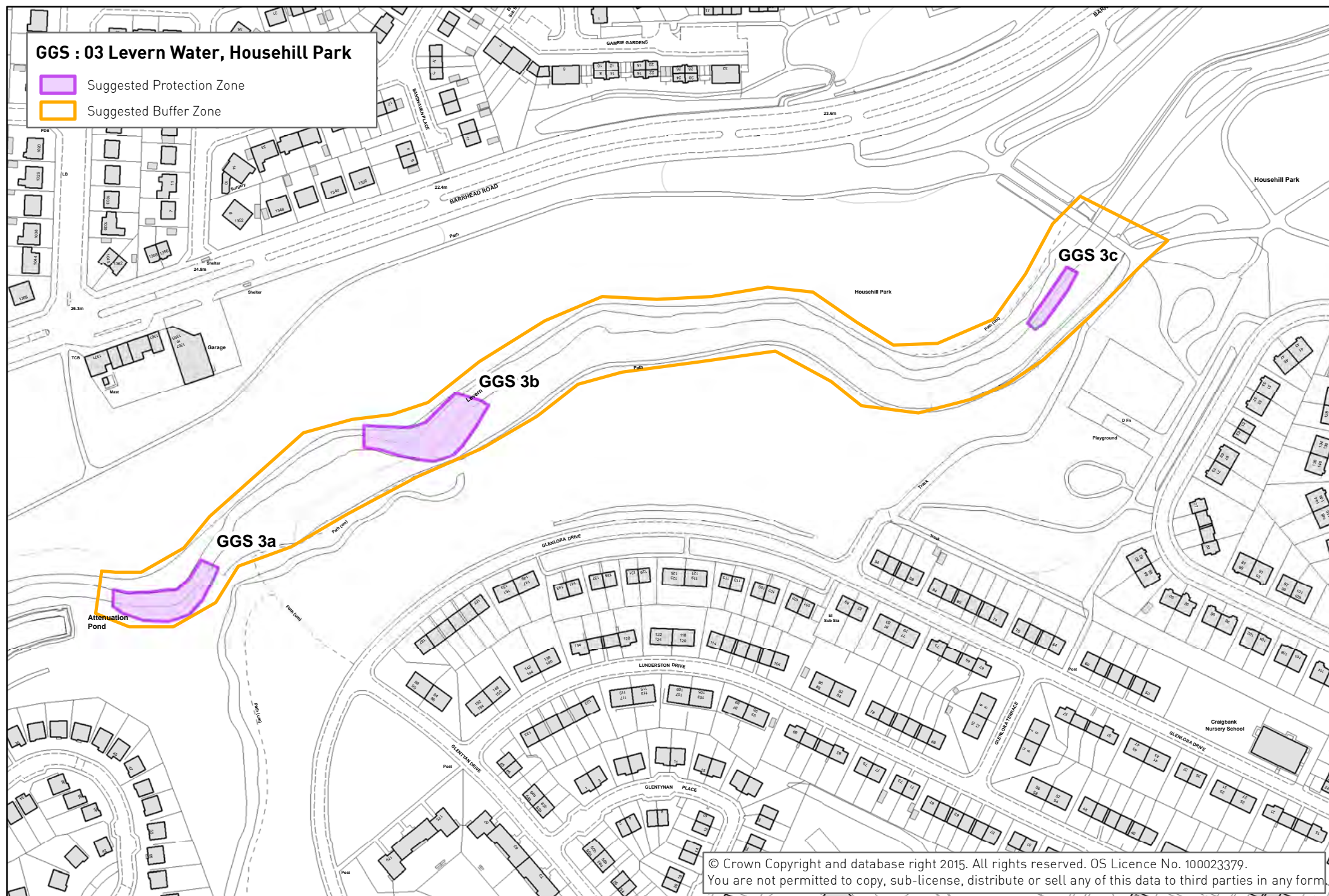




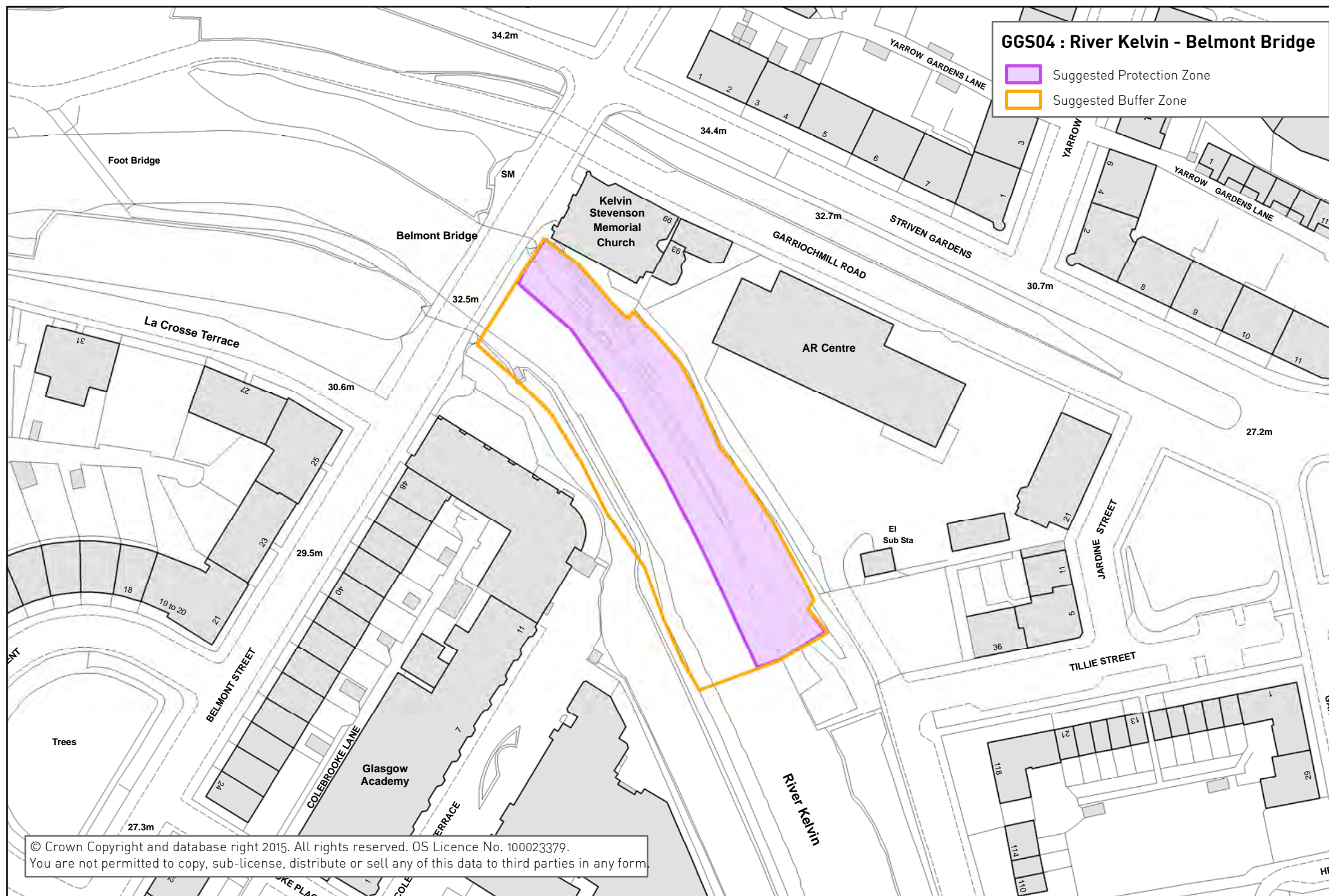




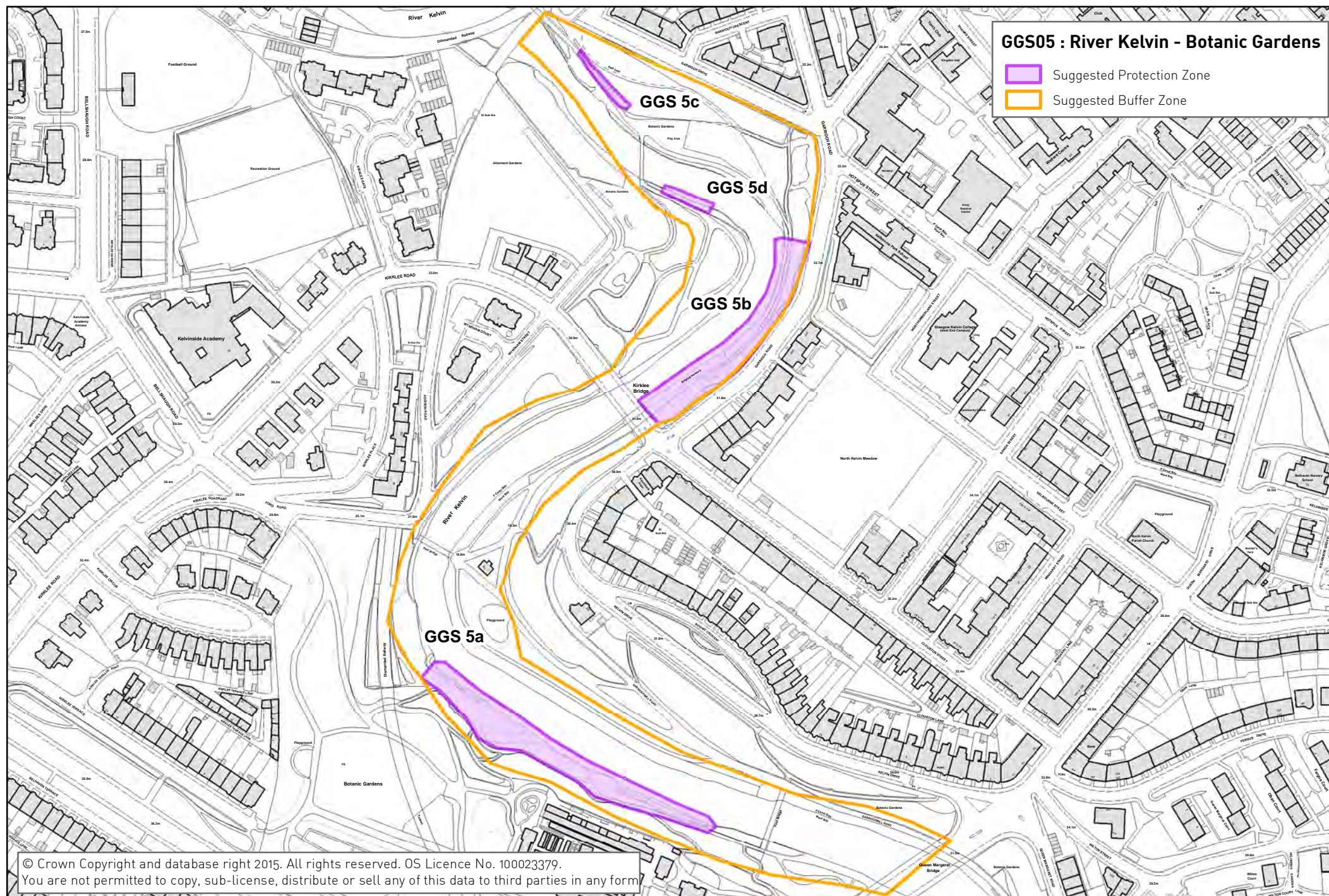




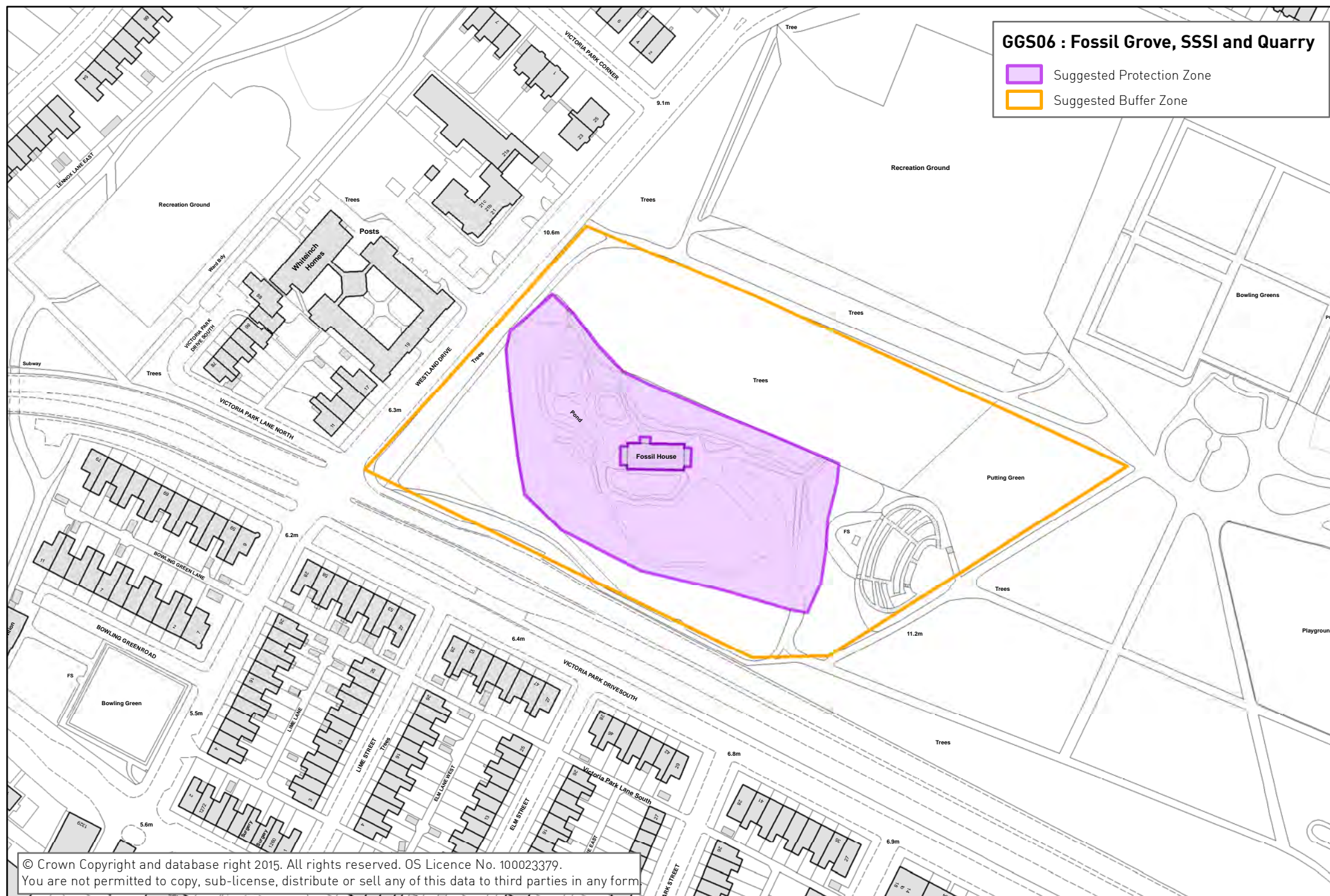




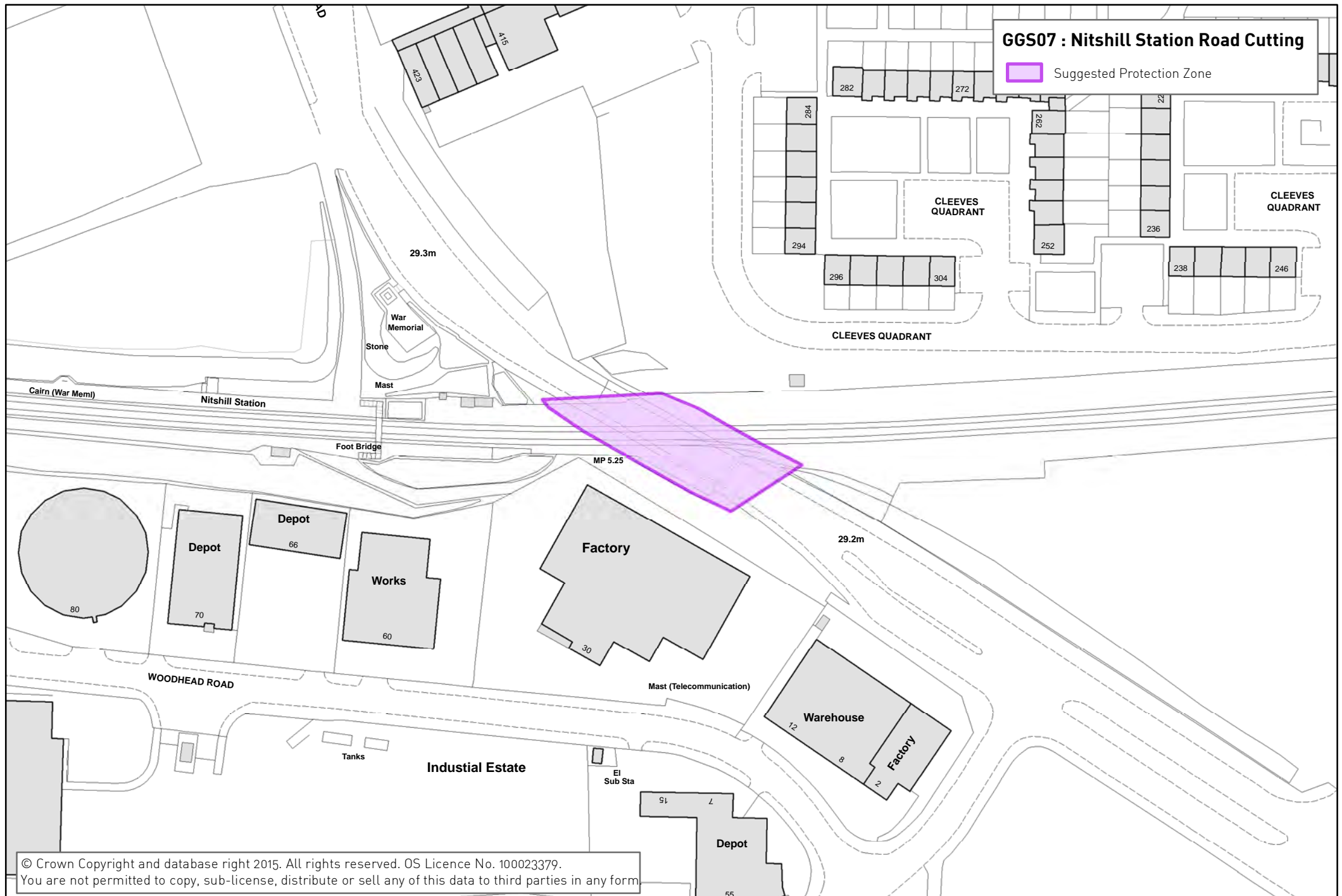




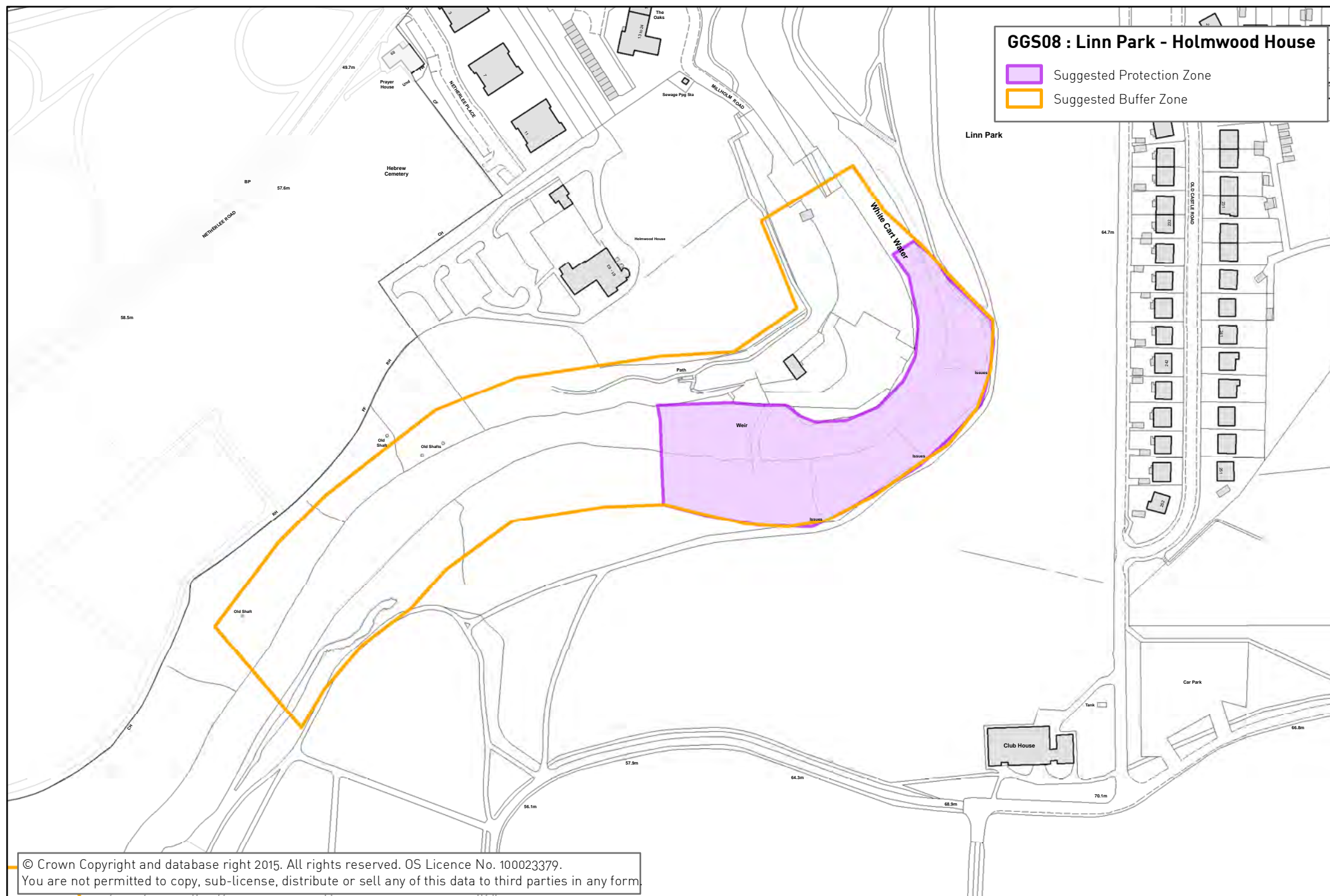




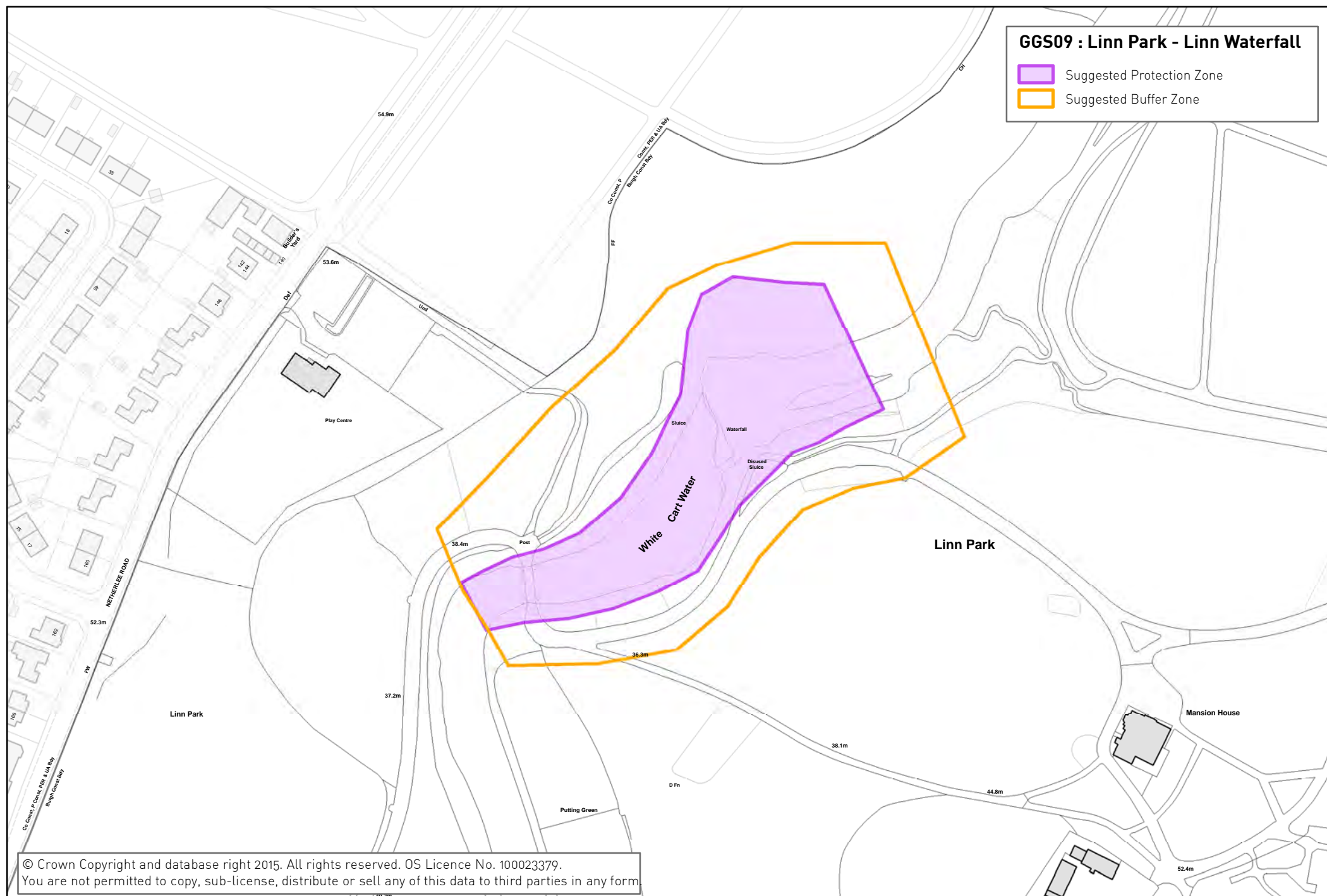




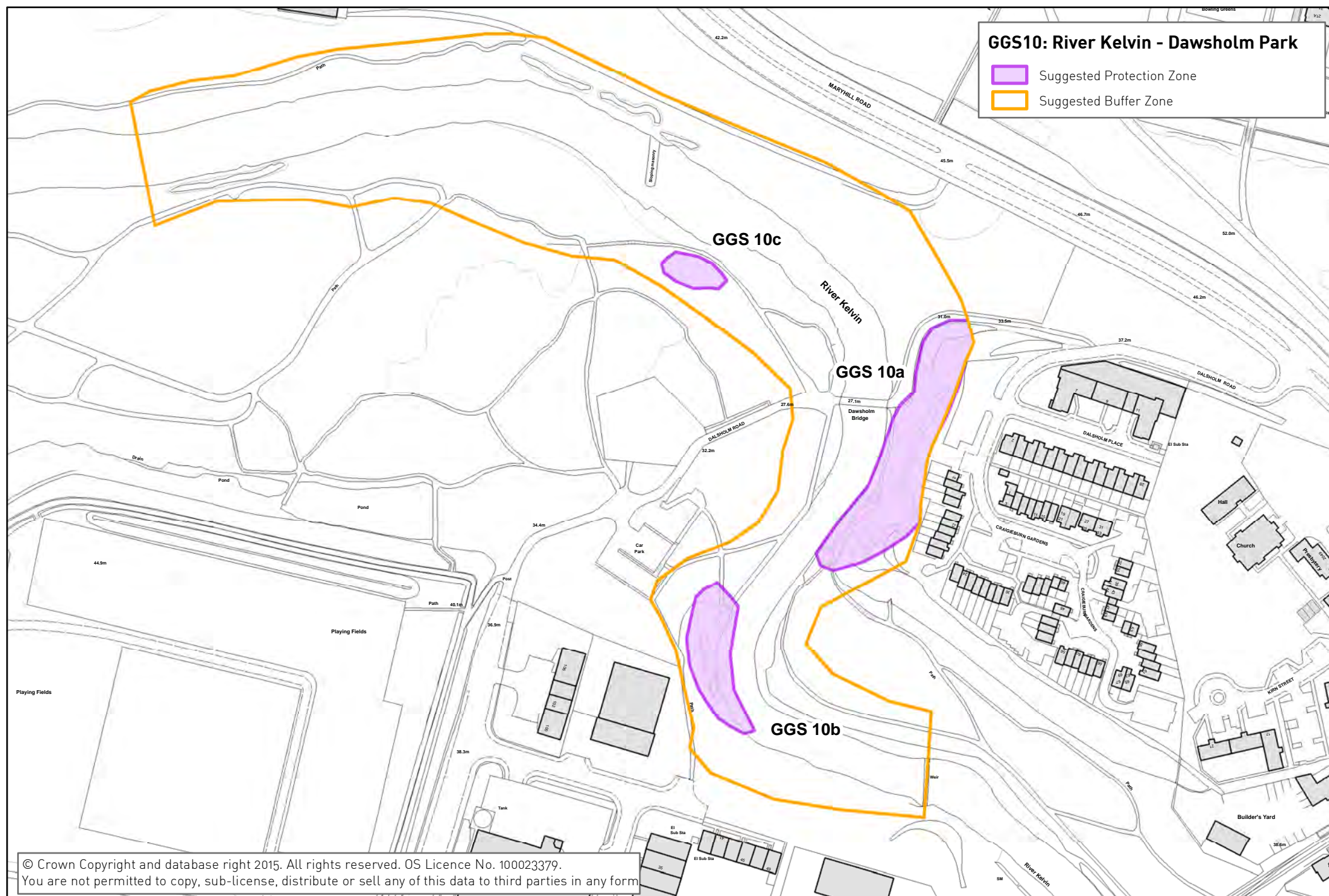




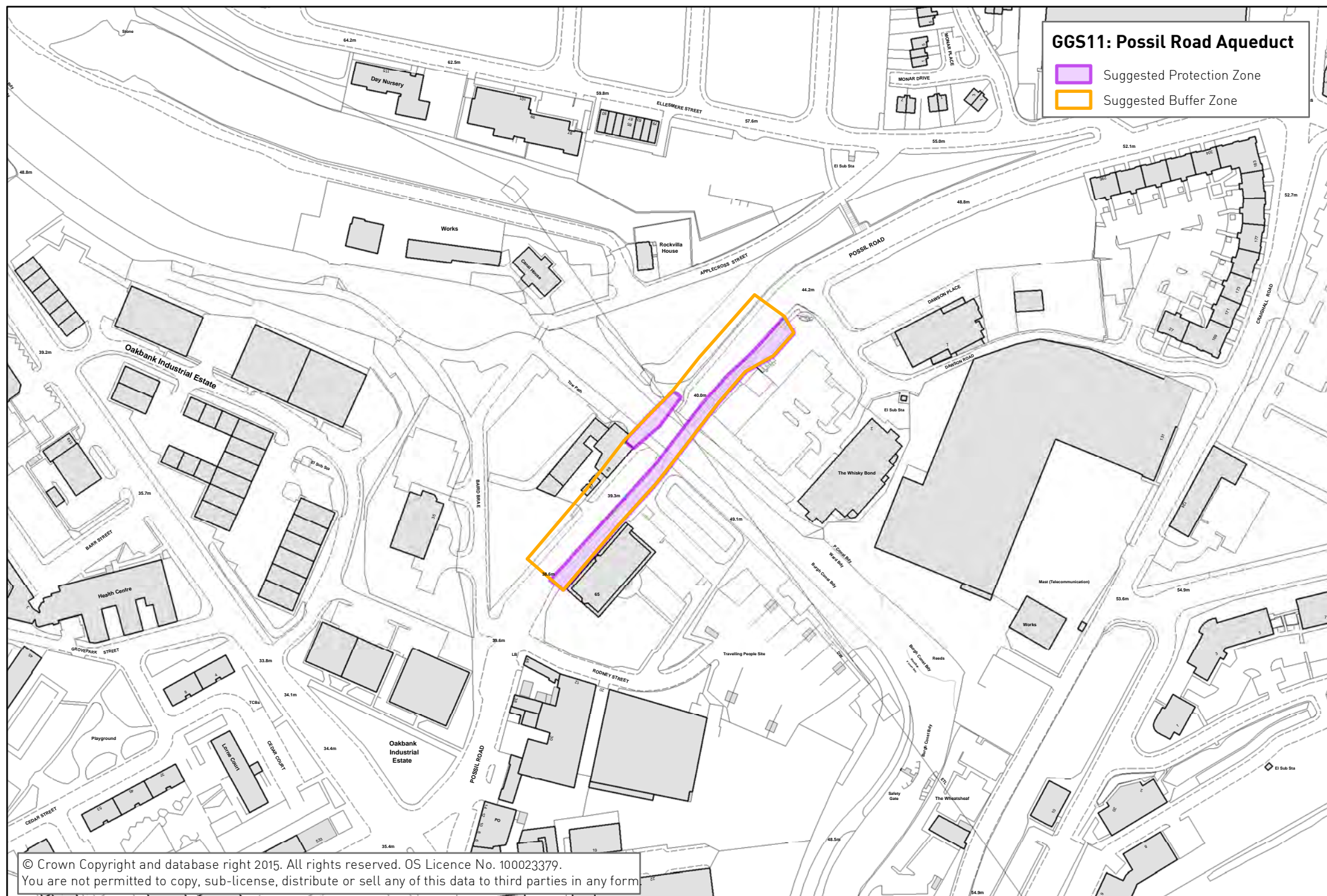




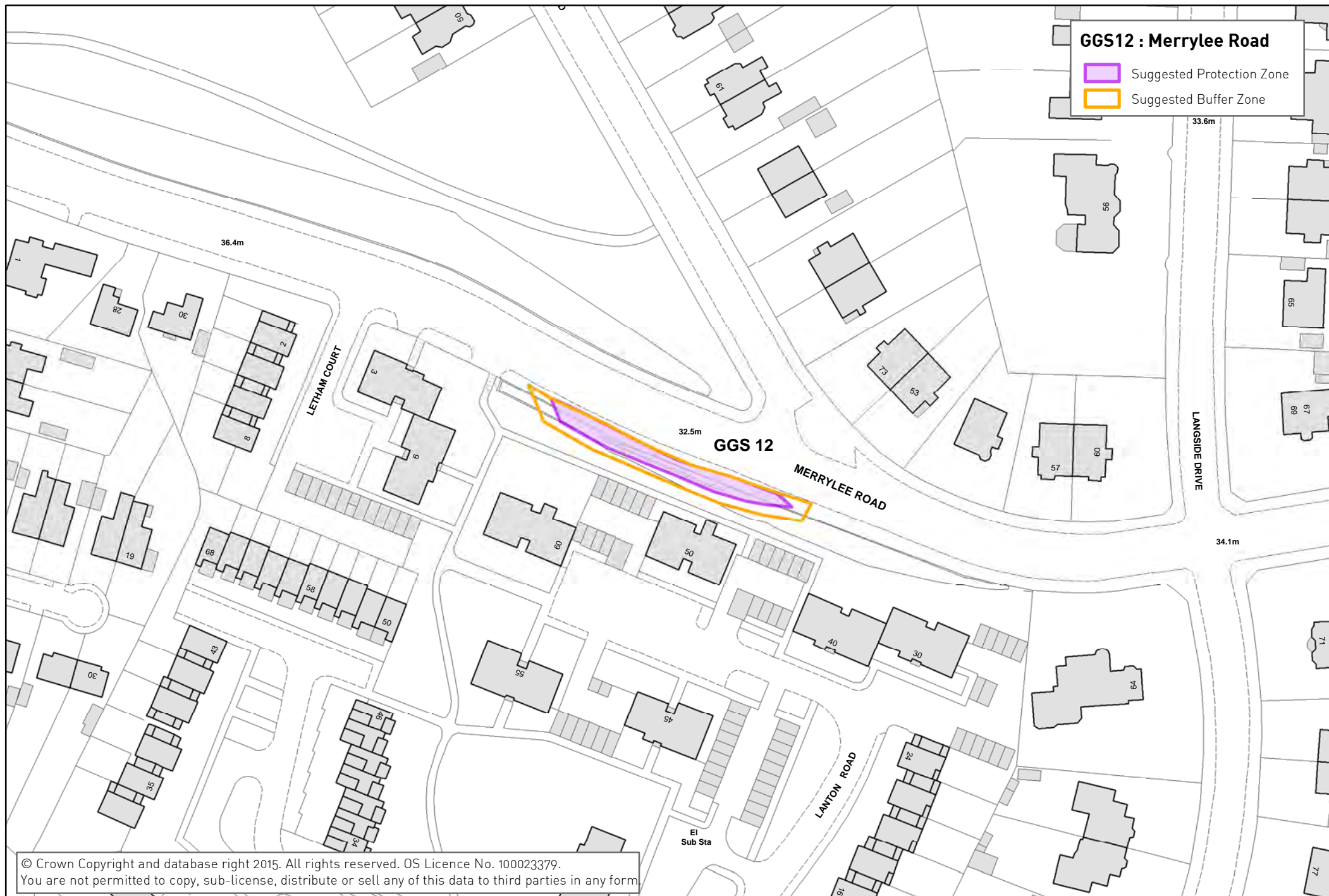




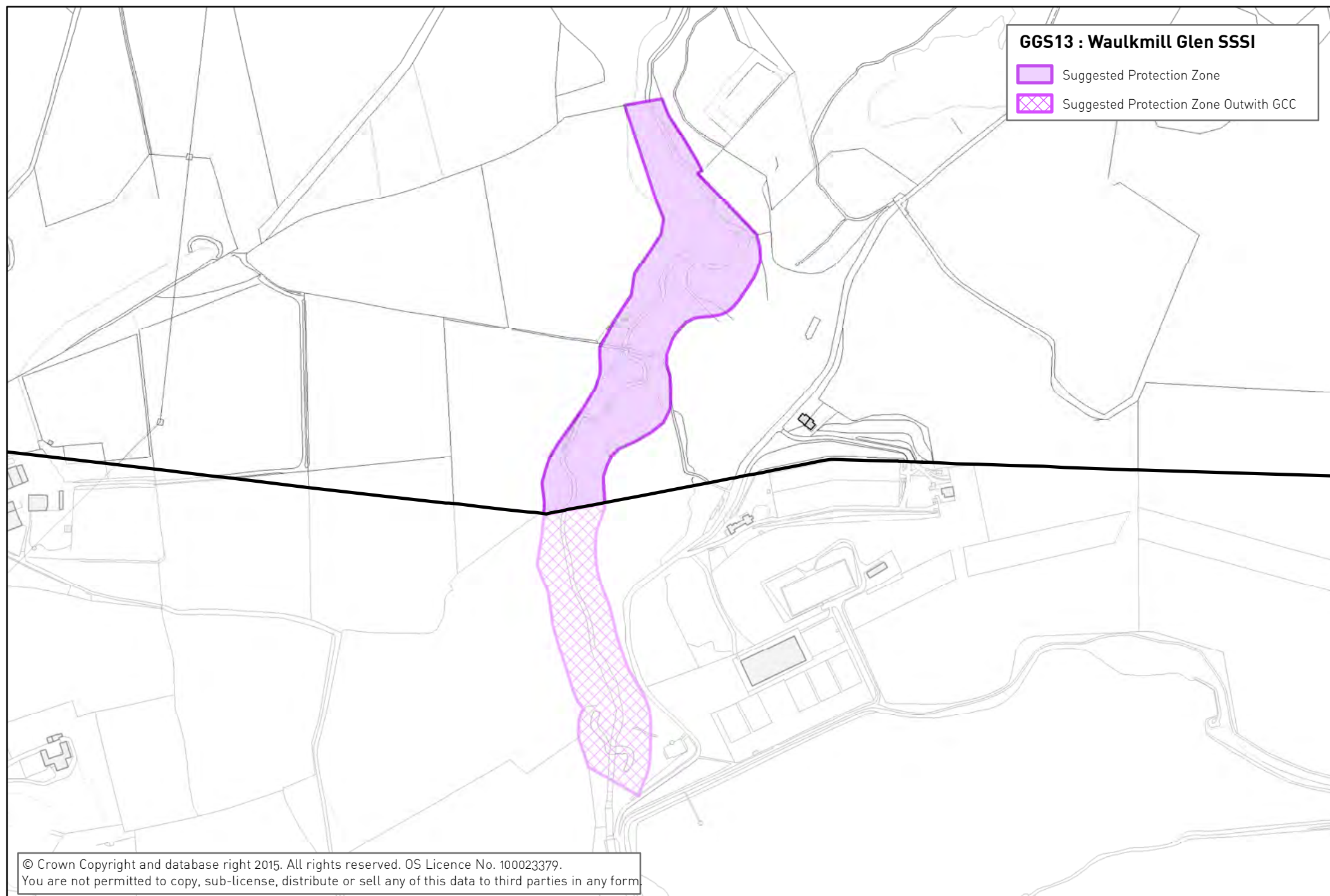




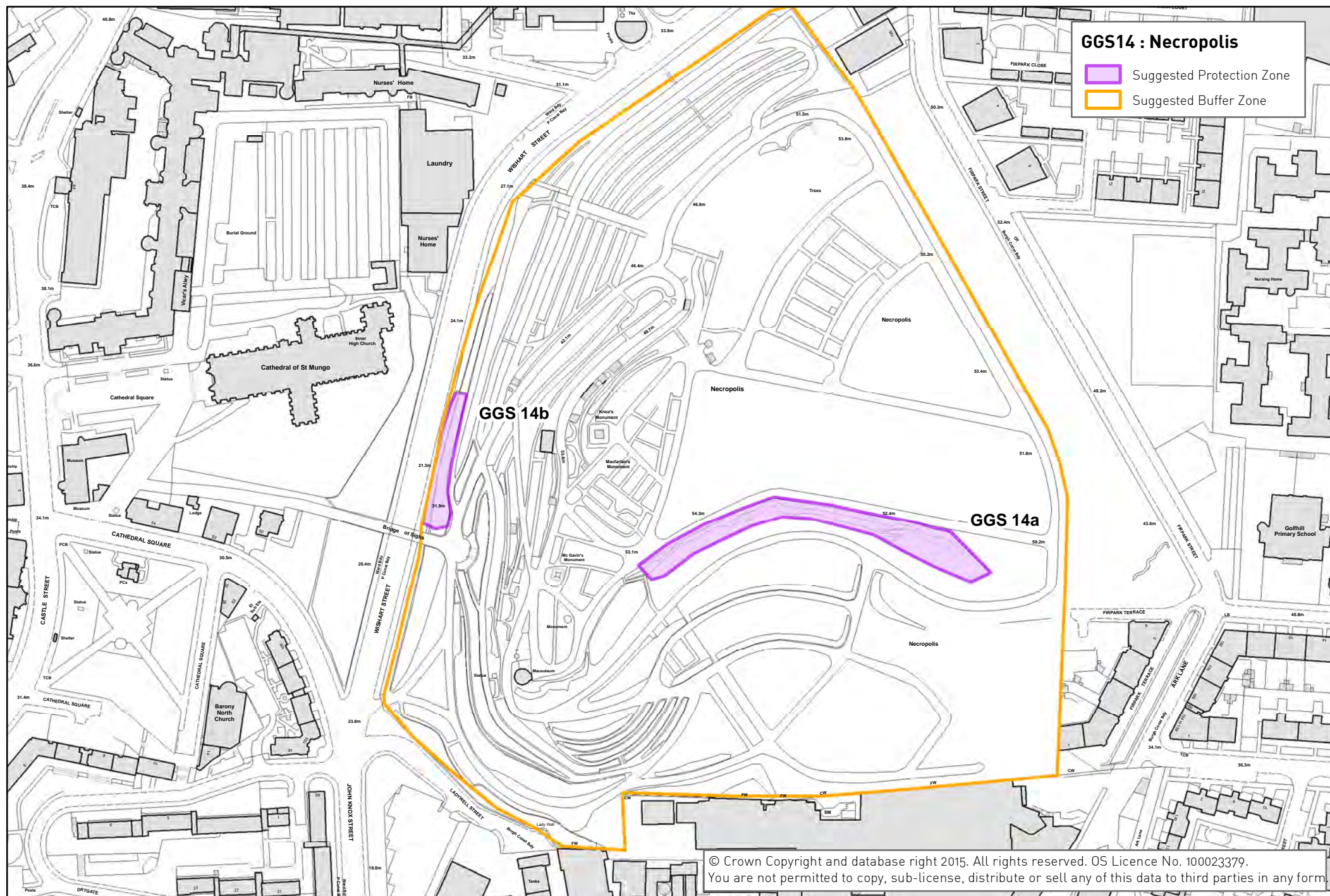




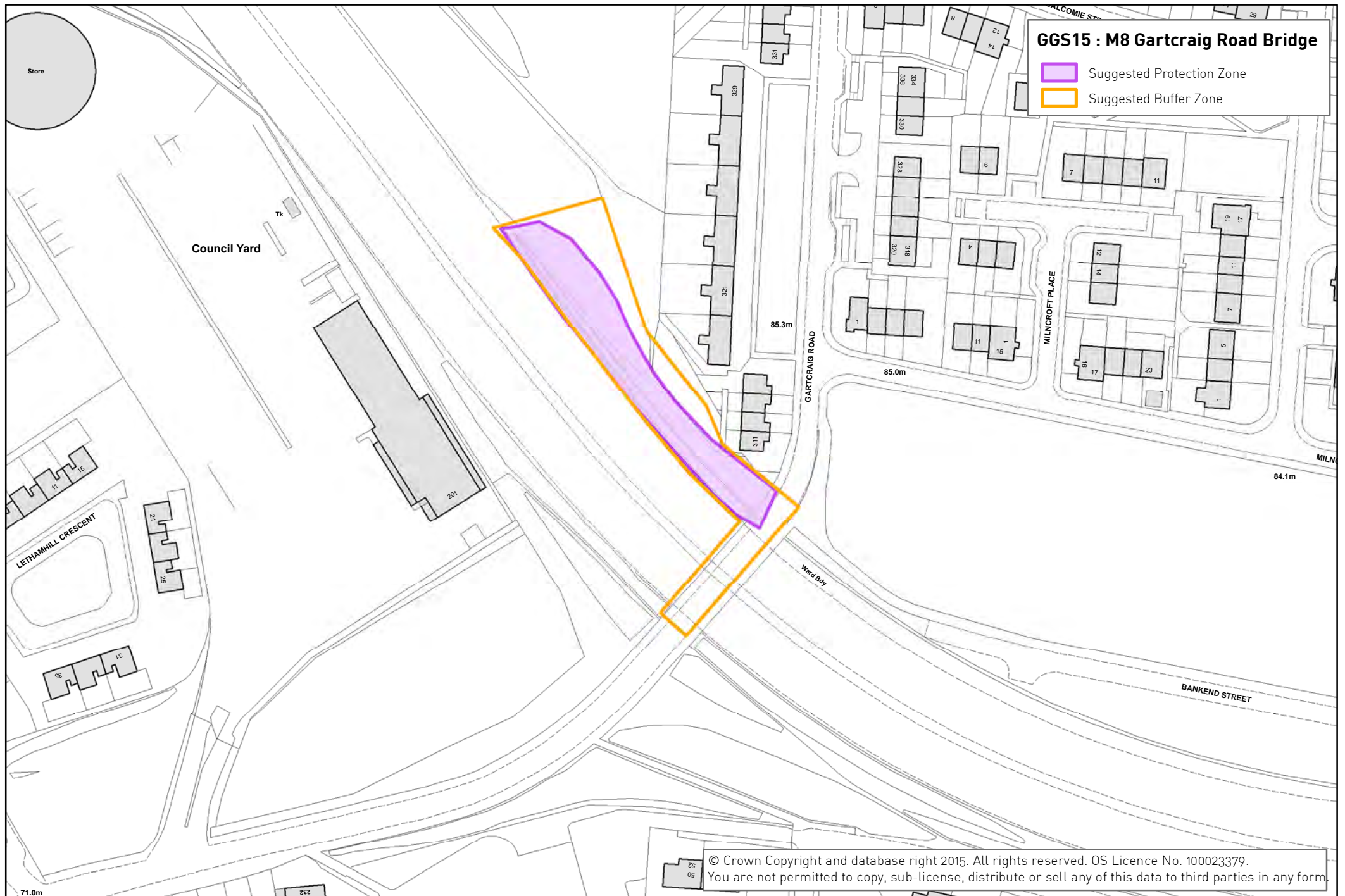




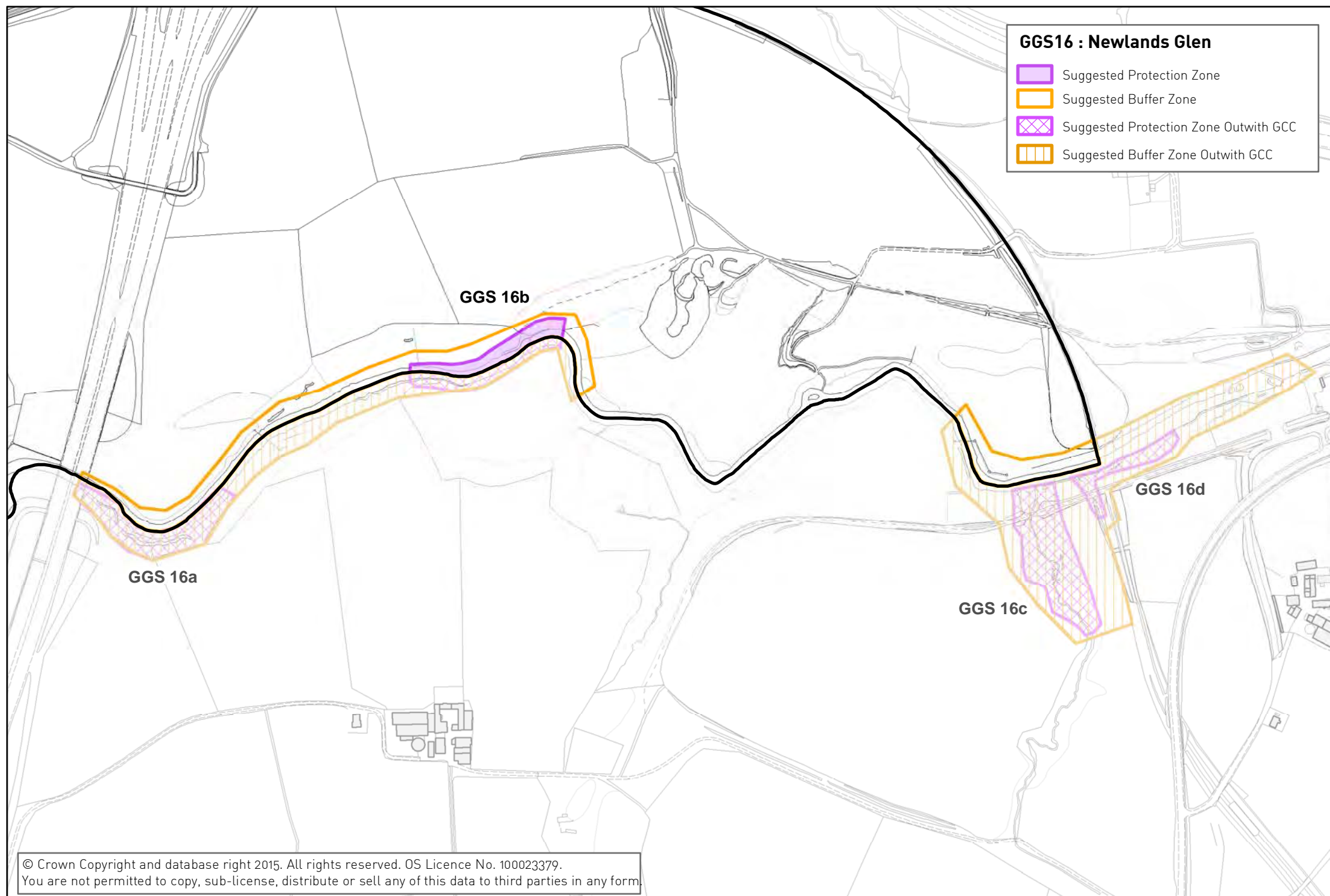




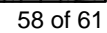




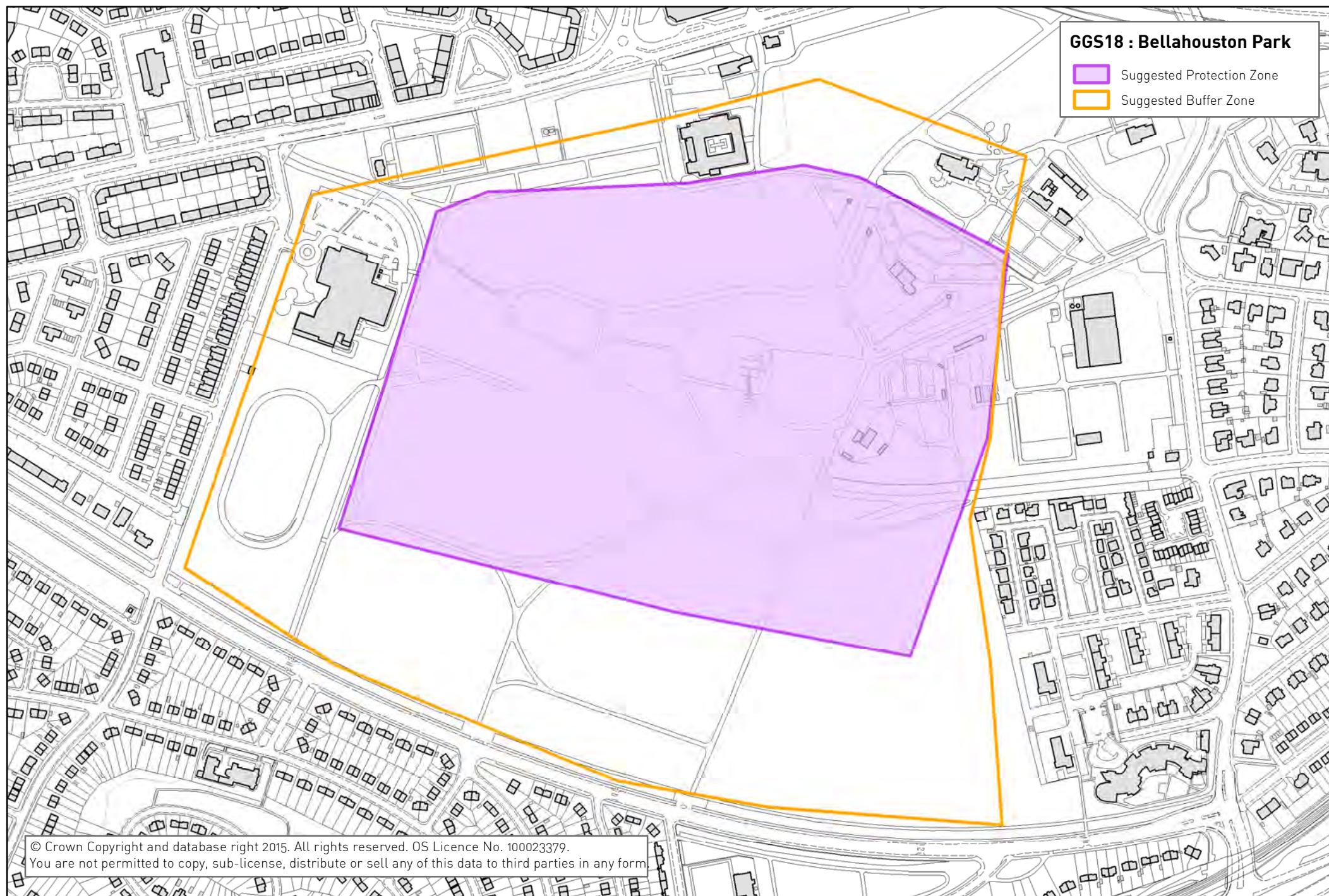




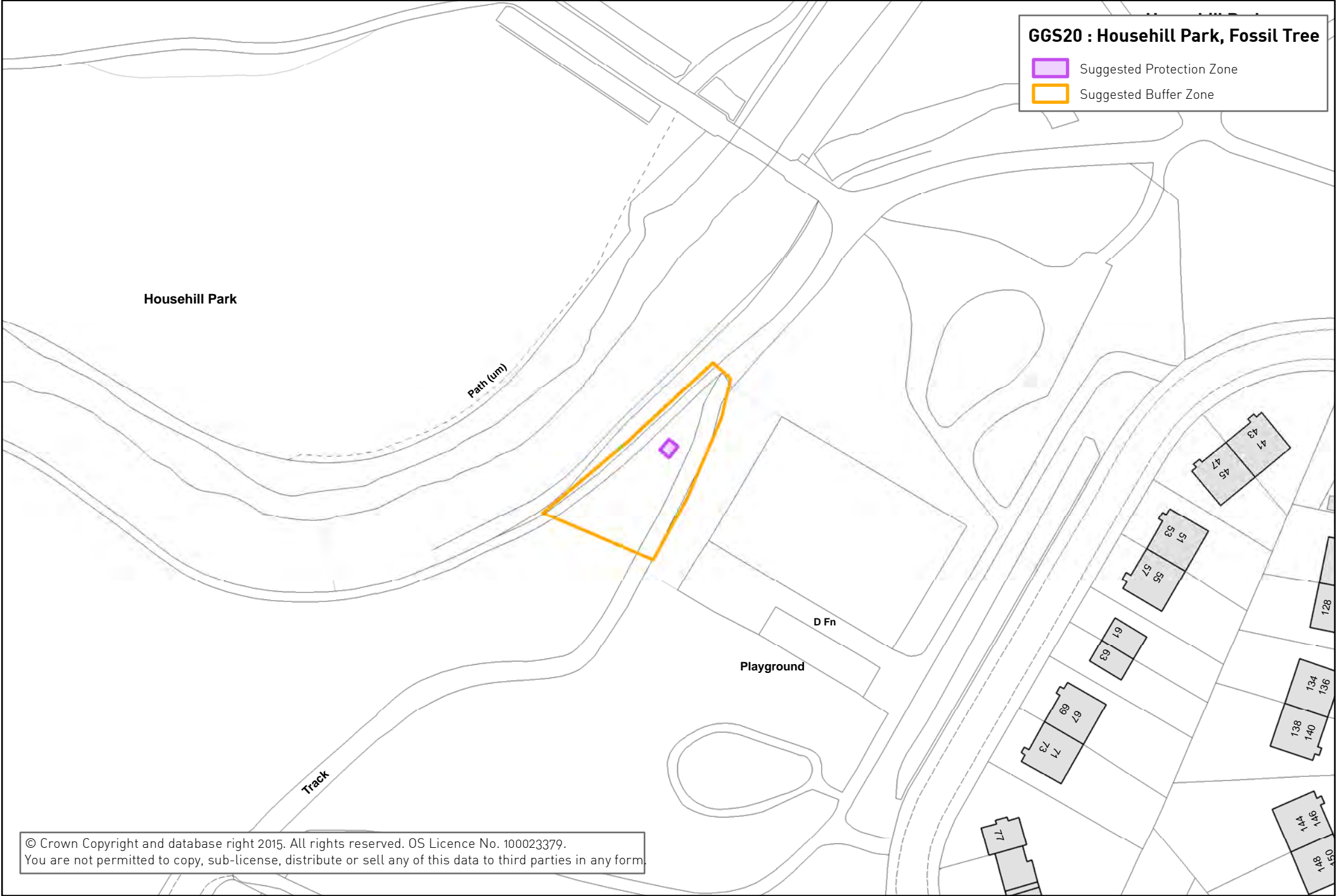














## GLOSSARY

**Ancient, Long-established and/or Semi-natural Woodland** – trees and woodlands identified, by SNH, on the Ancient Woodland Inventory, and of value for their biodiversity and cultural value by virtue of their antiquity.

**Ancient Woodland** - sites that have been continuously wooded since before 1750AD. Some of these may be primary, i.e. remnants of prehistoric woodlands, or secondary - on ground cleared sometime prior to 1750.

**Ancient Woodland Inventory** - a provisional guide to the location of Ancient Woodland produced by SNH. It contains three main categories of woodland – see individual definitions for Ancient Woodland, Long-established Woodland and semi-natural Woodland

**Long-established Woodland** - plantations or semi-natural woodland that came into existence between 1750 and 1860.

**Semi-natural Woodland** - predominantly trees and shrubs that are native to the site and are not obviously planted. It includes woodlands mapped after 1860 but with an earlier provenance.

**Woodland** - land of 0.25 has or more (and with a minimum width of 15 metres) under a stand of trees with, or the potential to achieve, tree canopy cover of 20% or more.

**Hedgerow** - any boundary line of trees or shrubs over 20m long and less than 5m wide between major woody stems at the base. Gaps should be taken into account (see: <https://www.gov.uk/government/publications/hedgerow-survey-handbook>).