Appendix 2: Framework to inform the prediction and evaluation of the effects of Local Plan Review March 2019 Consultation Draft Site Allocations and Growth and Regeneration Areas (Task B3)

Framework to inform the prediction and evaluation of the effects of Local Plan March 2019 Consultation Draft Site Allocations and Growth and Regeneration Areas (Task B3)

Introduction

The purpose of this framework is to add detail to main SA Framework set out within Section 3 of the Interim Report, to assist in the prediction and evaluation of the social, economic, and environmental effects of proposed allocations or broad regeneration areas within the March 2019 Local Plan Consultation. This specifically applies to:

- Growth and Regeneration Areas (**Appendix 3**, against Draft Policies DS1 – 14);
- Site Allocations (Draft Policy DA1) (**Appendix 4**);
- Industrial and Distribution Areas (Draft Policy E4) (**Appendix 4**); and,
- Avonmouth Industrial Area and Bristol Port (Draft Policy E5) (**Appendix 4**).

As retained policies, and site allocations have been assessed within previous Sustainability Appraisals (i.e. Bristol Central Area Action Plan Sustainability Appraisal February 2012 and Site Allocations and Development Management Policies Sustainability Appraisal 2013), it is not considered proportionate or necessary to review these again as part of the Bristol Local Plan Review Interim Sustainability Appraisal.

Methodology and assumptions for predicting and evaluating the effects

The appraisal of proposed allocations or broad regeneration areas has used GIS to inform a high-level assessment of effects.

Specifically, the approach set out within **Table 1** below refers to a set of indicative criteria and thresholds which have been developed to benchmark effects based on proximity to certain services, designations, features, or assets. Assessment criteria align with and add definition to objectives and decision-making criteria set out in the SA framework, to ensure a proportionate and consistent approach to the assessment of all site allocations and broad regeneration areas.

Based on good practice guidance, assumptions made to inform the prediction of effects of site allocations are as follows:

- Criteria form a **guide for the assessment**. Firstly, site allocation options were assessed for predicted effects based on GIS analysis, with straight-line distances (i.e. 'as-the crow-flies') used to assess thresholds. Particularly for the Growth and Regeneration Areas, professional judgement was then applied to further test and describe potential significant effects and consider the potential for mitigation to be incorporated. For the draft allocations, a summary of effects and proposed mitigation is described against the associated draft policy.
- Assessment was based on proximity of **existing services and facilities**, i.e. primary schools, secondary schools, healthcare facilities, sports facilities, retail centre and open spaces. While some sites may be large enough to provide new facilities in their own right, no such provision was assumed by the interim Sustainability Appraisal unless this was set out within associated

draft policy text (i.e. draft Development Strategy policy text of draft development considerations of the draft allocations).

- Mitigation to minimise negative and enhance positive impacts may be addressed elsewhere in retained and/or draft policies, and therefore cross-references are made where relevant.

Limitations and difficulties encountered

The assessment of draft allocations and broad regeneration areas was undertaken in Summer 2020. Limitations and difficulties are referenced against respective policies and for the process for assessment below:

- It should be noted that indicative criteria or thresholds have not been defined for each and every potential effect, as in some cases there is no corresponding GIS dataset. This is considered to be an accepted approach.
- The evidence base supporting the Local Plan Review was emerging throughout the Interim SA. Therefore, the framework to inform the prediction and evaluation of the effects of Local Plan March 2019 Consultation Draft Site Allocations and Growth and Regeneration Areas should be updated with the following revised evidence base documents:
  - Open Space Assessment and Local Green Space (LGS) and Reserved Open Space (ROS)layer.
  - Infrastructure Study: To assess the capacity of associated infrastructure provision.
  - Strategic Flood Risk Assessment (SFRA): Flood Risk data used within the framework is consistent with that which informed the March 2019 Consultation Draft Plan. The Revised SFRA was published in December 2020, and will require site allocations and GRAs to be reappraised against the content of this evidence base, and to enable a more accurate and up-to-date sequential test to be applied.
  - Updated Bristol Transport Study and transport modelling (to inform draft policy T2): To take account of strategic schemes within JLTP4, proposed levels of growth and transport proposals within GRAs on the highway network, levels of congestion and air quality.
  - Urban Potential Assessment, to determine effects on revised densities.

Table 1 Methodology for appraising Site Allocations and Growth and Regeneration Areas

SEA Theme	SA Framework Objective	Decision-making criteria	Indicative Assessment Guide and Rationale			
			Housing-led allocations (with an element of mixed-use) and Growth and Regeneration Areas	**Employment-led allocations (i.e. Industrial and Distribution Areas and Avonmouth Site Allocations)**	**Justification for criteria where relevant**	**Evidence used to inform assessment**
Population, Housing and Communities	**1.To ensure an adequate and diverse supply of housing that is affordable to everyone**	**DMC1**: Would development or policy provide sufficient housing to meet the identified needs of all communities within the city? **DMC2**: Would the development or policy ensure an adequate contribution to affordable housing?	**Site Allocations**: All potential residential allocations are expected to result in positive effects as they will contribute to the provision of additional housing, including affordable homes where applicable (+). The NPPF requires that the provision of affordable housing should not be sought for residential developments unless these are part of major development proposals. Therefore: • Larger sites (>10 homes) will contribute more to affordable housing (+); and, • Smaller sites (<10 homes) are not required to make a contribution to affordable housing, despite increasing the overall number of homes (0). Potential residential allocations that require alternative methods of delivery for homes, such as a level of self-build, custom house-building or community-led housing or those which require a greater mix of housing-types will contribute significantly to achieving this Objective (++). **Growth and Regeneration Areas**: The draft policies for Growth and Regeneration Areas all achieve positive or significant positive effects when assessed against SA Objective 1. There is some variation in the degree of effects based on specific reference to factors such as 'housing type'.	N/A	This approach is broadly consistent with the NPPF and good practice.	Site Allocations and Growth and Regeneration Area boundaries (March 2019 Consultation Draft)
		DMC3: Would the development or policy provide an appropriate mix of types of housing to meet the identified needs of all communities within the city, without resulting in harm to existing communities? **DMC4**: Would the development or policy enable alternative methods of delivery, including community-led and self-build?				
	2. Promote the conservation and wise use of land, maximising the reuse of previously developed land	**DMC5**: Would development or policy provide an opportunity for the reuse or regeneration of previously developed land?	**Site Allocations**: Categorised as: • Sites occupying >0.5Ha of brownfield or previously developed land (++) • Sites occupying <0.5Ha of brownfield or previously developed land (+) • Sites occupying <0.5Ha of greenfield land (-) • Sites occupying >0.5Ha of greenfield land (- -) **Growth and Regeneration Areas**: Categorised as: • Growth and regeneration areas comprising predominately brownfield land (++) • Growth and regeneration area containing development on greenfield and brownfield land (-/?) • Growth and regeneration area containing predominantly greenfield land (--)		Reflects good practice approaches, including SAs of previously adopted development plans for Bristol and therefore remains appropriate for this plan. Thresholds are based on definition of small and medium sized sites as defined in the NPPF.	**DMC5** and **DMC7**: Professional judgement review based on: • Review of current use and extent of brownfield land[1]; and • Greenfield land GIS layers including adopted Important Open Space (IOS) and Green Belt layer, and emerging Local Green Space and Reserved Open Space (March 2019). **DMC6**: GIS Layer relating to Urban Potential densities (2016). **IDAs / ASAs**: March 2019 layer.
		DMC6: Would development or policy provide an opportunity for a higher density within a sustainable location?	**Site Allocations and Growth and Regeneration Areas**: For the purpose of the assessment, a sustainable location is considered to be one which is located within or close to the city centre and other local centres or major transport routes, where residents are more likely to be able to access transport infrastructure, services and facilities on foot rather than needing to use a private motor vehicle. Following this logic and based on the optimal densities identified in a review of recent schemes in Bristol, the highest densities are likely to be most suited to city centre locations. Therefore, sites are categorised as follows: • 200 units/ha in a city centre setting (++); • 120 units/ha in a 'more intensive' inner urban setting; 100 units/ha in an inner urban setting; and 60 units/ha in a 'more intensive' outer urban area (+); and • All other areas, such as the 50 units/ha in the outer urban area, are assigned a 0 (neutral effect) (0). It is recognised that there is a degree of uncertainty in whether a particular site is likely to be appropriate for higher density development, and this may depend on other site-specific factors. No further consideration of the appropriateness of high-density development is provided in the appraisal of site allocations at this stage.	National planning policies encourage efficient use of land for employment uses. Therefore: • Sites which maximise efficient use of brownfield land that was previously in use for employment land or in employment locations (++); • Sites which fail to maximise efficient use of brownfield land or encourage employment development in unsustainable contexts (--). Employment locations are defined as the City Centre, Bristol Temple Quarter Enterprise Area and St Philips Marsh, Avonmouth Enterprise Area and Bristol Port, or named centres.	This approach is consistent with objectives to increase efficient use of land, including densities assumed within Urban Potential Assessment. Employment locations are considered were those identified within the JSP to be sustainable locations that could be best served by public transport or best aligned to existing and proposed JLTP4 transport infrastructure.	
		DMC7: Would development or policy maintain greenfield land and maintain the openness and permanence of the Green Belt?	There is a presumption against inappropriate development in the Green Belt within national policy. Sites will therefore be assessed as follows: • Sites that are not located within the Green Belt nor on greenfield land, and are proposed on existing previously developed land (0); • Sites that are not located within the Green Belt, but which are proposed on land which is predominantly green (-);		This approach will draw on evidence base work, such as the New Protection for Open Space (2018 and updates) and	

[1] https://data.gov.uk/dataset/82c7cfa3-b89d-4c3a-9ce1-daa2b6561d8d/bristol-brownfield-land-register-2018

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			• Sites that are located within the Green Belt (- -).		the JSP Green Belt Review (Stage 1, 2015 and Stage 2, 2016).	
	3. Ensure easy and affordable access to key services	**DMC8**: Would development be within, or would policy ensure development is within, easy walking distance of key services (e.g. GP, post office, community centre)?	Local services and community facilities are defined in the NPPF as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship. **Site Allocations**: With proximity to open spaces considered elsewhere, sites will be assessed against the following: • Sites that are within easy walking distance (<800m) to a range of key services (including Town, District or City centre) (++); • Sites that are within easy walking distance (<800m) of a limited number of key services (local centre)(+); and • Sites that are not within easy walking distance (>800m) of a key service (-). **Growth and Regeneration Areas**: Given the generally mixed-use nature of these current proposals, the following effects are achieved where a Growth and Regeneration Area: • Overlaps with a larger defined Centre (including Town, District or City centre) and contains a range of key services (++/?); • Overlaps with a community centre, library, Post Office or children's centre, a Local Centre or is within easy walking distance of a centre (+/?); or • Not within easy walking distance of a defined centre, but draft policy requires retail provision or provision of any key service defined above (0/?).	N/A	Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres)[2].	**DMC8**: Layers relating to: • Adopted Centres layer; • Community services, such as: GPs: Post offices (2011, updated 2018); Community Centres (2007, all accessed August 2020).
	4. Increase participation in cultural and community activities	**DMC9**: Would development or policy result in a net gain of community or service facilities?	For most sites, detail of a development may not be known at this stage, in which case the effects would be considered to be unknown (?). Where development places demand on community infrastructure, CIL may be used for development of replacement or improvement of existing facilities (+ /?)[3]. As there is a presumption against the loss of community facilities (through retained policy BCS12 and DM5), any outright loss of community facilities without mitigation would be seen as negatively effecting this Objective (- -).	N/A	Whilst the Bristol Central Area Action Plan uses walking distances derived from Barton et al (2011) to different community uses, these distances are now becoming relatively dated and do not appear to be used by current assessments.	
Health and Inequalities	**5. To reduce poverty and income inequality and improve the quality of life for those living in areas of concentrated disadvantage.**	**DMC10**: Would development or policy contribute to improvements in the built environment in deprived areas? **DMC11**: Would development or policy offer potential for regeneration or investment in deprived areas (i.e. new homes, jobs and infrastructure?)	**Site Allocations**: Across both allocation types, assessment criteria are categorised as: • Mixed-used sites that are located within areas of high deprivation could offer an opportunity for investment and local employment (++). • Residential-only or employment-only sites that are located within an area of high deprivation (+). • Sites that are not located within areas of high deprivation (0). • Sites that would result in a net loss of active employment on the site or prejudice future investment in infrastructure, in an area of high deprivation (- / - -) (such as major infrastructure schemes defined within the Joint Local Transport Plan). **Growth and Regeneration Areas**: Noting the scale of Growth and Regeneration areas, it is assumed that there would be potential for direct and indirect benefits for the built environment for areas that are more deprived: • High levels of deprivation or unemployment includes areas predominantly (around half or more) in IMD Decile 1-3 (++/?). • Moderate levels of deprivation where sites are predominantly in IMD Deciles 4- 6 (+/?). • Low levels of deprivation where sites are predominantly in IMD Deciles 7 - 10 (0).		Higher deprivation is typically defined as the top 30% most deprived LSOAs, based on the Index of Multiple Deprivation. Given the scale of GRAs, it was considered appropriate to review Deciles 1-3.	**DMC10** and **DMC11**: Index of Multiple Deprivation (MHCLG, 2019)[4] by LSOA.
	6. To reduce health inequalities and promote healthy lifestyles across the city.	**DMC12**: Would development or policy contribute to improving air quality?	**Site Allocations and Growth and Regeneration Areas**: Sites within an AQMA, without appropriate mitigation, could expose residents / users of new development to areas in breach of health-based exposure criteria. However, it is uncertain about the extent to which appropriate mitigation (such as orientation) will be incorporated into a site-specific design at this stage. In addition, the degree to which a new development would adversely impact on air quality would depend on several site-specific factors, including proximity to centres to encourage walking or proximity to public transport; level of parking provision and provision of electric vehicle charging infrastructure. As these are currently unknown at this stage and partially linked to development design, these factors cannot be adequately appraised within the		This approach is consistent with objectives to increase efficient use of land, including densities assumed within Urban Potential assessment.	**DMC12**: Bristol AQMA boundary (published 2017, accessed August 2020) and layers relating to Urban Potential densities (2016).

[2] Planning for Walking (CIHT, 2015) https://www.ciht.org.uk/media/4462/ciht_-_planning_for_walking_document-12pp_v2_singles.pdf
[3] https://www.bristol.gov.uk/documents/20182/2549050/Stage+1+CIL+and+S106+Guidance+2020.pdf/160ef220-0cd2-3c7e-4012-5fb4a344c389
[4] http://dclgapps.communities.gov.uk/imd/iod_index.html#

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			assessment. For the purposes of the assessment, sites which are in an AQMA are therefore are considered to achieve a (-) score, whilst sites outside an AQMA achieve a (0) score.			
		DMC13: Would development or policy contribute to positive wellbeing and healthy lifestyles, including good living conditions and access to open spaces, pleasant surroundings and healthier food choices?	**Site Allocations**: With access to healthier food choices and healthy lifestyles covered elsewhere, this assessment has been categorised by: • Sites that are within 400m of a defined open space (++). • Site that are within 800m of a defined open space (+). • Sites that are more than 800m from a defined open space (-). **Growth and Regeneration Area**: Areas are within 400m of a defined open space (+), or include references to protection of spaces within the GRA boundary (+/?).	N/A	Standards for Green Spaces are set out within a combination of Bristol Parks and Green Spaces Strategy (2008)[5], and Accessible Natural Greenspace Standards (ANGSt).	Greenfield land GIS layers including adopted Important Open Space (IOS) and Green Belt layer, and emerging Local Green Space and Reserved Open Space (March 2019).
		DMC14: Would development or policy make walking and cycling easy and attractive as routine methods of transport?	Using GIS distances as a guide, assessments have been categorised as: • Sites that are on or adjacent to key walking routes / walking route enhancement network AND adjacent to the existing / proposed cycling network enhancements (++); • Sites that are on or adjacent to key walking routes / walking route enhancement network OR adjacent to the existing / proposed cycling network enhancements (+); • Sites which are not in close proximity (>400m) OR which have limited access to walking network / public rights of way and cycling network (-); and • Sites which do not enable access to a walking or cycling network as routine methods of transport (- -).		The emerging West of England Local Cycling and Walking Infrastructure Plan (2020) sets out key walking enhancement routes and cycling enhancement networks, alongside existing cycling and walking routes. Policies BCAP23 and BCAP24 are retained policies which establish walking enhancements through parts of central Bristol.	**DMC14**: Public rights of way mapping (2016, updated 2018, accessed August 2020), existing cycling network and cycling network enhancements (including West of England Local Cycling and Walking Infrastructure Plan 2020 and proposed improvements by BCC 2015[6]).
	7. Ensure access to education and learning for all sections of society	**DMC15**: Would development or policy result in a net gain of adequate educational facilities?	**Site Allocations:** As education is on the former Regulation 123 list, all development across the City contributes to a beneficial effect on educational facilities (+/?). Assessment is therefore based on the following: • Where a site is particularly large, this may result in educational provision on-site (but this is subject to capacity in adjacent existing facilities) (++/?). • Where a site would result in a greater number of homes within close proximity (within 400m - 800m) to an educational establishment, this may have a positive effect on the ability to achieve adequate provision subject to capacity of existing facilities (+/?). • Development which generates a need for an educational establishment beyond these distances, but which is not of a scale to provide on-site, could result in an overall net loss of accessibility to adequate education (-/?). • Finally, as there is a presumption against the loss of educational establishments (through retained policy BCS12 and DM5), any outright loss of an educational establishment would be seen to negatively affect this objective (- -). **Growth and Regeneration Areas**: • Where a Growth and Regeneration Area proposes an existing educational facility within its boundary (++/?, subject to capacity). • Where a Growth and Regeneration Area contains, or is within, 800m of early years or primary school; or within 1500m of a secondary school (+/?). • Development within a Growth and Regeneration Area which is beyond 800m / 1500m of an educational establishment, and which does not mandate the provision of a school within the policy text, could result in an overall net loss of accessibility to adequate education (-/?).	N/A	CIHT walking distances are used. These distances are consistent with the approach in BCAP and more conservative than recent guidance which indicates that schools should be within 2 miles (below 8 years old), and within 3 miles (for children aged 8 to 16 years old)[7].	**DMC15**: Educational establishments, including: • Pre-schools; • Primary Schools; • Secondary and SEN schools; • Additional support. Layer published by BCC in 2014, updated in 2018 and accessed in August 2020.
		DMC16: Would development or policy ensure that educational	Assessment criteria have been categorised as: • Sites that are within 800m of a primary school and 1500m of a secondary school	N/A		

[5] https://www.bristol.gov.uk/documents/20182/34780/Parks%20and%20Green%20Space%20Strategy%20-%20adopted%20Feb%202008_0_0_0_0_0_0.pdf/6bb2635a-ac11-4f22-b6fd-5b708b329940
[6] https://data.bristol.gov.uk/geonetwork/srv/eng/catalog.search#/metadata/826bcbf6-c323-4e83-b383-e0f539a11849
[7] New home to school travel and transport guidance (2014) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/295189/Home_to_School_Transport_Consultation_Document.pdf

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		services are located within easy walking distance?	(+); and, • Sites that are not within 800m of a primary school and 1500m of a secondary school (-).			
Economy and Employment.	**8. To support the economy and ensure that there are suitable opportunities for employment.**	**DMC17**: Would development or policy provide a range of high quality employment spaces to meet the identified needs of all communities and employers within the city? **DMC18**: Would development or policy support opportunities for growth (i.e. creation of employment spaces, supporting infrastructure etc.) in priority employment sectors? **DMC19**: Would development or policy regenerate or provide employment opportunities in areas that are currently experiencing high rates of unemployment? **DMC20**: Would development or policy maintain existing strategic employment opportunities?	N/A	Although data is available on existing employment allocations, this represents just a part of the overall employment picture. It was not possible to conduct comprehensive GIS distance analysis on all current and allocated employment sites (?). Assessment will therefore be broadly based on qualitative analysis of the following: • Development that could maintain, or deliver new, high quality employment spaces, particularly in areas which are currently experiencing high rates of unemployment e.g. South Bristol (++); • Site could enable provision of space to support sector strengths, although this is likely to be uncertain until any future planning application comes forward on the site (+ /?); and • Site would result in no net loss of well-used and occupied employment areas to other uses, where scale of loss determines the scale of effect (-/- -/ ?). **Growth and Regeneration Areas**: Noting the scale of Growth and Regeneration areas, it is assumed that there would be potential for direct and indirect benefits for employment across areas that are more deprived. Assessment of effects would be as follows: • Predominantly employment uses proposed in an area with a high proportion of unemployment (IMD Decile 1-3) (++/?). • Mixed use proposed in an area with a high (IMD Decile 1-3) or moderate (IMD Decile 4-6) proportion of unemployment (+/?). • Predominantly on-employment uses proposed in an area of high proportion of unemployment (0/? or -/?).	Areas of high rates of unemployment are determined as the top 10% - 30% within the Employment Deprivation Mapping identified within Index of Multiple Deprivation (2019). The West of England Local Industrial Strategy (LIS) identifies three significant sector strengths: advanced engineering; including aerospace; creative, cultural and digital industries; and financial, business and legal 'tech' services. Employment locations are defined as the City Centre, Bristol Temple Quarter Enterprise Area and St Philips Marsh, Avonmouth Enterprise Area and Bristol Port, or named local centres. These were considered to be sustainable locations that could be best served by public transport or best aligned to existing and proposed JLTP4 transport infrastructure within the JSP.	**DMC17-20**: Areas of high unemployment from Index of Multiple Deprivation (MHCLG, 2019)[8] by LSOA.
		DMC21: Would development or policy support delivery of carbon neutral employment, by reducing the need to travel for employment, improving digital connectivity or delivering low or zero carbon employment spaces?	N/A	Although data is available on existing employment allocations, this represents just a part of the overall employment picture. It is not possible to conduct comprehensive GIS distance analysis on the delivery of carbon neutral employment, and therefore thus remains unknown (?). Assessment will therefore be broadly based on qualitative analysis of the following: • Site would likely enable the delivery of low carbon sector employment, reduce the need to travel or deliver low carbon employment spaces through appropriate mitigation (+ /?). • Site would likely result in the creation of jobs in higher carbon sectors, would increase the need to travel for employment or would not adopt		

[8] http://dclgapps.communities.gov.uk/imd/iod_index.html#

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				appropriate mitigation (- / ?).		
	9. Ensure access to a range of shopping facilities for all sections of society	**DMC22**: Would development or policy enhance and diversify the vitality and viability of local / retail centres? **DMC23**: Would development be, or policy ensure, development is within easy walking distance of retail services?	**Site Allocations**: Sites will be assessed using GIS for their proximity to defined centres and qualitatively assessed by land use, as follows: • For all mixed-use sites that are located within a city, town, district or local centre, or residential uses that are within 800m of a local centre, there is an opportunity to continue to enhance and diversify the vitality and viability of this centre (+); and • For employment only or residential only uses located beyond 800m from a town, district or local centre, the effect is considered to be neutral (0). **Growth and Regeneration Areas**: Given the generally mixed-use nature of these policy proposals, a beneficial effect (+/?) is achieved where a Growth and Regeneration Area overlaps with, or is within 800m easy walking distances of a City, Town or District centre.	The promotional policy position for uses which contribute to maintain the viability, vitality and diversity of centres, including active ground floor uses, is established within retained policies BCS7 and DM7 – DM10. Again, accepted walking distances from CIHT (2015) are used.	**DMC22**: Adopted Centres layer.
Townscape and Landscape	**10. To ensure the protection and enhancement of the historic environment and its setting**	**DMC24**: Would development or policy avoid degradation of heritage assets, townscape and landscape?	**Site Allocations**: All effects on heritage, townscape and landscape assets are considered to be uncertain as they will depend on the design of the development which is currently unknown (?); effects may be beneficial where a heritage-led contextual response is provided. Therefore, whilst GIS layers can form a guide (thresholds which are appropriate for a city centre context), the effect will be based on whether mitigation measures could be utilised. The following assessment criteria will be employed: • Site is within a Conservation Area or Registered Park and Garden, or contains other designated heritage assets (such as listed buildings / scheduled monuments), and reference is made to conservation and enhancement of these (+ /?); • Site is within a Conservation Area or Registered Park and Garden, OR contains or is adjacent to a designated heritage asset (such as Listed Buildings / Scheduled Monuments), AND inadequate reference is made to mitigation measures (-/?); and • Site is not within a conservation area or Registered Park and Garden, AND is not adjacent to a designated heritage asset (such as Listed Buildings / Scheduled Monuments) (0). **Growth and Regeneration Area**: Again, all effects are considered to be uncertain as they will depend on design-specific considerations which are currently unknown. However, similar to the above: • Where a Growth and Regeneration area contains or overlaps with a Conservation Area or Registered Park and Garden, or contains other designated heritage assets (such as Listed Buildings / Scheduled Monuments), and reference is made to conservation and enhancement of these (+ /?); • Where a Growth and Regeneration Area contains or overlaps with a Conservation Area or Registered Park and Garden, or contains other designated heritage assets (such as Listed Buildings / Scheduled Monuments), and inadequate reference is made to preservation and enhancement measures (-- /? Or -/?); • Site is not within a conservation area or Registered Park and Garden, and is not adjacent to a designated heritage asset (such as Listed Buildings / Scheduled Monuments) (0).	Consideration of heritage assets varies, with most assessments mainly seeking to determine if proposed allocations contain designated heritage assets.	**DMC24**: Assets including: • Conservation Areas (2011, updated 2018, accessed August 2020) • Listed Buildings (2010, updated 2018, accessed August 2020) • Scheduled Monuments (2014, updated 2018, accessed August 2020) • Registered Park and Gardens (2009, updated 2018, accessed August 2020)
	11. To ensure the protection and enhancement biological and geological assets and improve the quality of wildlife habitats	**DMC25**: Would development or policy protect biological, geological and nationally or internationally designated nature conservation assets from adverse effects?	**Site Allocations and Growth and Regeneration Areas**: Ecological or geological assets could include: Ancient Woodlands; Ramsar sites; National Nature Reserves; Sites of Special Scientific Interest; Special Areas of Conservation, Local Nature Reserves and Special Protection Areas. Local designations include: Site of Nature Conservation Interest; Regionally Important Geological and Geomorphological Sites; Local Nature Reserves; or Wildlife Network Sites. Whilst development of sites would need to be in accordance with retained policies, any effects on protected sites will be dependent upon mitigation measures which will be implemented as part of the design, and as such these are currently unknown (?). The following categories offer a broad guide for assessing effects of both categories of allocations: • The site or GRA does not overlap with, but may be adjacent to, an ecological or geological designation; therefore, it may have a neutral effect subject to any mitigation proposed (0/?); • The site or GRA falls within a SSSI impact zone (?); • The site or GRA is situated within a local ecological or geological designation, therefore, it may have a minor negative effect subject to any mitigation proposed (- /?); and • The site or GRA is situated within a statutory ecological or geological designation; therefore, it may have a significant negative effect subject to any mitigation proposed (- - /?).	Consideration of designated assets varies, with assessments generally drawing on professional judgment to provide proximity-based criteria. CIEEM guidance encourages use of professional judgment.	**DMC25 and DMC26**: Layers included: Ancient woodlands; Ramsar Sites (2013, updated 2018); National Nature Reserves; SSSI and Risk Zones (2010, updated 2018); SAC (2013, updated 2018), LNR; SPA (2013, updated 2018); SNCI (2012, updated 2018); Wildlife Corridors; (2012, updated 2018) and RIGs.
		DMC26: Would development or policy enable a net gain in biodiversity?	**Site Allocations and Growth and Regeneration Areas:** Sites that have currently high levels of biodiversity are likely to become increasingly difficult to demonstrate a 10% 'net gain' in biodiversity (-/?). Existing retained policies (BCS9 Green Infrastructure and DM15 Green Infrastructure Provision) set the context for achieving net gains for biodiversity across the city, and this is likely to become a requirement through the Environmental Bill in the future. Whilst the Defra Biodiversity Metric 2.0 beta, created by DEFRA will eventually become the tool for assessing Biodiversity net gain, this requires inputs regarding the loss of habitats and biodiversity values of these. This will likely be determined through scheme design and application process; it is unclear at this stage. On this basis, the assessment against this decision-making criterion is currently uncertain (?).		
	12. To ensure the protection and	**DMC27**: Would development or policy maximise the opportunity	**Site Allocations**: Existing retained policies (BCS9 Green Infrastructure, DM15 Green Infrastructure Provision and DM25 Greenways) set the context for achieving green infrastructure functions and benefits.		This will utilise the Strategic Green Infrastructure Network	Overlap with: • Greenways (published by

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	enhancement green and blue infrastructure and ensure access to a variety of open space and recreation	to provide multifunctional green infrastructure?	Using these policies, the design of a development will ultimately guide the extent to which a site contributes to multi-functional green infrastructure, and as such, all effects are uncertain at this stage (?). However, specific sites may have locational advantages which mean that these can connect to the strategic green infrastructure network, deliver flood risk mitigation opportunities or connect to local food growing spaces (+/?). **Growth and Regeneration Area**: Areas include allotments or specialist food growing land and land within higher flood risk zones, which overlap (+/?); or where draft policy text specifically requires GI provision or enhancement (+/?). Where an area is not within a higher flood risk zone (i.e. 3a or 3b) and does not include allotment or specialist food growing land, the effects will be uncertain (?).		(defined to inform BCS9) and Greenways (DM25).	2013, updated 2018, accessed August 2020). • Flood Risk Zones (SFRA 2011, EA Mapping, West of England Composite Flood Risk Layer 2018). • Surface Water Flooding 30yr, 100 yr, 1000yr (EA Updated Flood Mapping for Surface Water, 2018). • Allotments (published by 2010, updated 2018, accessed August 2020).
Transport and Movement	**13. To encourage a demonstrable modal shift and reduce the need to travel?**	**DMC28**: Would development or policy offer an opportunity to improve access to and quality of sustainable transport modes (walking, cycling and public transport) for all communities?	**Site Allocations**: Sites have generally been selected through their proximity to sustainable transport, with the Urban Potential Assessment guiding greater densities in parts of the city that are best served by public transport or local services. Developments will continue to be guided by proposed retained policy DM23 Transport Development Management. If the site is situated within all four of the distances listed below it is considered to have a significant positive effect (++); and for three of the distances below this would yield a positive effect (+). • Within 400m of a bus stop[9] • Within 800m of a train station[10] • On or adjacent to primary walking network/public rights of way routes • On or adjacent to existing cycling network If the site is not situated within any of the distances above it is considered to have a neutral or negative effect (0 or -). Proposed upgrades to public transport or sustainable modes of transport may also render the effects as uncertain at this stage (?). **Growth and Regeneration Area**: Whilst awaiting more updated modelling for the GRAs, the Bristol Transport Access Level (BrisTAL) provides a way of measuring the level of public transport connectivity within the city of Bristol. It is derived from the Public Transport Accessibility Level (PTAL) approach used by Transport for London. Commentary is provided to the relative accessibility of GRAs against the Bristol Transport Access Level.		Distances are broadly consistent with approaches taken elsewhere and from CIHT guidance on planning for walking[11].	**DMC28**: Mapping of: • Bus stops (2017, updated 2018); • Railway stations (2011, updated 2018); • Public rights of way (2016, updated 2018); • Cycle networks, with 400m and 800m buffers applied. All access from BCC pinpoint, August 2020. BrisTAL (2019)[12]. Accessed August 2020.
		DMC29: Would development or policy offer an opportunity to support the delivery of new transport and digital infrastructure?	All new development has the potential to support the delivery of new transport and digital infrastructure in line with emerging policies. Therefore, whilst effects are uncertain and depending on site-specific design, it is likely that overall effects are positive (+ /?). There are major transport schemes which are listed within the emerging JLTP 4 for the West of England, including MetroWest and Mass Transit options. Whilst adjacent sites may both support and benefit in the long-term from these schemes, given alignments are 'corridor' focussed and illustrative, it is not possible at this stage to set out exactly which sites will be affected (++ /?).		N/A	**DMC29**: Consideration of LTP4 mass transit schemes.
	14. To maintain and improve the existing highway network	**DMC30**: Would development or policy likely maintain or reduce levels of traffic in an area already experiencing congestion issues?	All new development, unless required to be car-free which would be positive in effect (+), has the potential for increasing the number of vehicle journeys and therefore contributing to congestion issues in the city. Therefore proposals are generally considered to score negatively with an unknown effect dependent upon the scale of development (-/?). Policies for Transport Development Management and Parking Standards, alongside emerging policies to limit parking and increase cycling provision, will likely result in an overall positive effect on levels of vehicular movements associated with new development (+/?).		N/A	This will need to be updated once work to inform Draft Policy T2 complete.
		DMC31: Would development or policy offer an opportunity to enhance or improve the existing highway network?				

[9] For bus stops in residential areas, 400 metres has traditionally been regarded as a cut-off point and in town centres, 200 metres (DOENI, 2000), whilst people will walk up to 800 metres to reach a railway station (CIHT, 2015)
[10] For bus stops in residential areas, 400 metres has traditionally been regarded as a cut-off point and in town centres, 200 metres (DOENI, 2000), whilst people will walk up to 800 metres to reach a railway station (CIHT, 2015)
[11] https://www.ciht.org.uk/media/4462/ciht_-_planning_for_walking_document-12pp_v2_singles.pdf
[12] http://data.bristol.gov.uk/geonetwork/srv/eng/catalog.search#/search?resultType=details&sortBy=relevance&fast=index&_content_type=json&from=1&to=3&any=BrisTAL+(Bristol+Transport+Access+Level)

<table>
<tr><th>SEA Theme</th><th>SA Framework Objective</th><th>Decision-making criteria</th><th colspan="4">Indicative Assessment Guide and Rationale</th></tr>
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<tr><td rowspan="5">Climate, Energy and Waste</td><td rowspan="5">15. To reduce the risk of flooding from all sources.</td><td>DMC32: Would development or policy be directed towards lower flood risk areas and / or offer opportunities to significantly reduce flood risk?
DMC33: Would development or policy support sustainable and resilient flood risk management?</td><td colspan="2">National planning guidance sets out a requirement to take account of and address risks associated with flooding and coastal change in the planning process. This requires Local Planning Authorities to apply a sequential approach to site selection so that development is, as far as reasonably possible, located where the risk of flooding is lowest, taking account of both climate change and the vulnerability of future uses to flood risk. Alternative development options must be considered within the Sustainability Appraisal, by considering flood risk, surface water run-off and the impact of development, alongside other planning objectives.
Site Allocations: The aim should be to avoid locating new development in medium and high risk flooding areas having regard to the sensitivity of the development to flooding. Using the Flood Risk Vulnerability Classification[13], the following table provides a guide for the assessment. Uncertainty is introduced where national planning policy requires an Exception Test to be completed.
For development adjacent to main rivers, flood risk activity permits may be required for development of the site within 8m (for non-tidal main rivers) and 16m (for tidal main rivers). Mitigation is also likely to be take the form of measures within policies for flood risk and water management; development adjacent to waterways; development and flood risk and habitat preservation and creation of waterways.
<table>
<tr><th>Predominantly / Majority:</th><th>Essential Infrastructure (transport / utilities)</th><th>Highly Vulnerable (basement dwellings, mobile homes)</th><th>More Vulnerable (Houses, residential institutions, non-residential uses for health and education)</th><th>Less Vulnerable (retail uses and businesses)</th><th>Water Compatible (flood control infrastructure, sewage works, ship building and maritime)</th></tr>
<tr><td>Flood Risk Zone 1</td><td>(++)</td><td>(++)</td><td>(++)</td><td>(++)</td><td>(++)</td></tr>
<tr><td>Flood Risk Zone 2</td><td>(+)</td><td>(- /?)</td><td>(+/?)</td><td>(+)</td><td>(+)</td></tr>
<tr><td>Flood Risk Zone 3a</td><td>(- /?)</td><td>(--)</td><td>(- /?)</td><td>(+)</td><td>(+)</td></tr>
<tr><td>Flood Risk Zone 3b</td><td>(- /?)</td><td>(--)</td><td>(--)</td><td>(--)</td><td>(+)</td></tr>
</table>
Growth and Regeneration Areas: Proposals for Growth and Regeneration Areas are typically for a mix of uses, and therefore the table above is not as applicable. In addition, for larger areas, there may be more opportunities to mitigate and manage the risk of flooding. Therefore, GIS overlaps of flood risk layers have been used to highlight the scale of risk:
• Growth and Regeneration Areas is within Flood Risk Zone 1 and there is a relatively low level of surface water flooding impacting the area (<20% in all categories) (0);
• Growth and Regeneration Areas is exposed to very high levels of flood risk 2, 3a or 3b (approximately 25% of the total GRA area or less) (-/?);
• Growth and Regeneration Areas is exposed to significant levels of flood risk 2, 3a or 3b (approximately 25% of the total GRA area or more) (--/?).</td><td>The approach taken here is consistent with National Planning Policy Guidance for siting more vulnerable development in areas of least risk. BCC are currently updating the evidence base for flooding in the city including a Strategic Flood Risk Assessment.</td><td>Overlap with:
• Flood Risk Zones (SFRA 2011, EA Mapping, West of England Composite Flood Risk Layer 2018);
• Surface Water Flooding 30yr, 100 yr, 1000yr (EA Updated Flood Mapping for Surface Water, 2018).</td></tr>
<tr><td>DMC34: Would development or policy have a beneficial effect on water resources?</td><td colspan="2">No data is readily available to enable GIS analysis of the site options in terms of water quality or water availability. Any new development is expected to result in water consumption during operation/use, however, it is anticipated that water saving measures will be part of good design, required by emerging policy, and required by changes in Building Regulation Standards (including Appendix G). All sites are therefore considered to have a neutral effect on water resources (0).</td><td>N/A</td><td>N/A</td></tr>
<tr><td>DMC35: Would development or policy likely have a positive effect on water quality, and would it provide opportunity to improve water quality?</td><td colspan="2">The presence of a groundwater source protection zone or aquifer does not represent a major constraint for most (non-polluting) types of development. However, for the purposes of assessment, distances have been categorised as:
• Site is situated away from vulnerable water bodies AND outside of a groundwater protection zone (0); and
• Site is situated within a ward adjacent to a vulnerable water body OR within a groundwater protection zone this has the potential for negative effects (-).</td><td>N/A</td><td>Vulnerable waterbodies, nitrate vulnerable zones and groundwater protection zones[14].</td></tr>
<tr><td>DMC36: Would development or policy ensure a high standard of sustainable design and construction through minimising resource use, energy efficiency and waste production?</td><td colspan="2">No data is readily available to enable GIS analysis of the site options for their effect on energy efficiency and waste production. It is assumed that the construction of new development will require the use of some non-renewable materials and natural resources. The full effect will be unknown until further details on the scale, design, and layout of the development is defined through any future planning application. Taking the above into account, it is considered that all the sites have a neutral effect (0).</td><td>N/A</td><td>N/A</td></tr>
<tr><td>DMC37: Would development or</td><td colspan="2">Site Allocations and Growth and Regeneration Areas: Sustainable urban food production is fundamental to the sustainability of future food</td><td>National planning policies</td><td>ALC mapping (particularly</td></tr>
</table>

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/575184/Table_3_-_Flood_risk_vulnerability_and_flood_zone__compatibility_.pdf
[14] Pinpoint ('River water quality 2013' where results = bad or poor

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		policy maximise opportunities to support sustainable urban food production?	security. Retained Policy BCS9 Green Infrastructure recognises the multi-functional role of the City's green infrastructure, including its role in food production. Sites and GRAs will therefore be assessed against the following guides: • Where an element of space is designated for food production (+ /?) or draft policy supporting text requires allotment provision (+/?); • Where a site or GRA is proposed on areas of good agricultural land (Excellent Agricultural Land Classification (ALC) Grade 1 or Very Good ALC Grade 2) or previous allotment land (-), and no provision is made for allotments or specialist food growing land within the draft policy (-).		require the best and most versatile (BMV) agricultural land to be enhanced.	Grade 1 and 2) (2019, accessed August 2020)[15]; and current and former allotment land.
	17.Minimise air and noise pollution	**DMC38:**Would development minimise exposure to pollution or offer opportunity to reduce pollutions?	**Site Allocations and Growth and Regeneration Areas**: The Bristol AQMA covers the city centre including arterial routes. Sites within an AQMA, without appropriate mitigation, could expose new development to areas in breach of health-based exposure criteria (--/?). As before, for the purposes of the assessment, sites which are in an AQMA or cumulative impact zone are therefore considered to achieve a (-) score, whilst sites outside an AQMA achieve a (0) score.		This approach is consistent with objectives to increase efficient use of land, including densities assumed within Urban Potential assessment.	Bristol AQMA boundary(published 2017, accessed August 2020) and layers relating to Urban Potential densities (2016)
	18. To maximise the potential for energy efficiency, reduce greenhouse gas emission and ensure that the built and natural environment and its communities can withstand the effects of climate change	**DMC39**: Would development or policy enable aspirational targets for energy efficiency to be achieved?	It is assumed that new development will need to meet required energy efficiency targets. However, the full effect under this decision-making criterion will be unknown until further details on the scale, design, and layout of the development are known. Taking the above into account, it is considered that all the sites therefore have a neutral effect (?).		N/A	N/A
		DMC40: Would development or policy provide opportunities for a net gain in renewable energy production and zero carbon energy supply within the Plan area?	All new development would have the potential for renewable energy production (through solar photovoltaic panels for example) however, the full effect will be unknown until further details of the development are known. As such, it is considered that all sites have an unknown effect at this stage (?).		N/A	N/A
		DMC41: Would development or policy provide opportunities for the use of low carbon and decentralised energy sources (including energy networks)?	**Site Allocations and Growth and Regeneration Areas**: Assessment criteria have been categorised as: • Site is located within the Heat Priority Area, therefore there is potential for the development to be connected to this low carbon network (+); and • Site is located outside of the Heat Priority Area, therefore it is considered that this will have a neutral effect as the development of the site may offer opportunities which are unknown (?).		Based on opportunity to connect to Bristol's heat network if within the Heat Priority Area.	Heat Priority Area boundary[16].
		DMC42: Would development or policy increase resilience to the effects of climate change?	All new development would have the potential to increase resilience to the effects of climate change (through provision of sustainable urban drainage systems, green infrastructure on site, energy efficient design etc.) however, opportunities to differentiate between sites are as yet unknown. All sites are therefore considered to have an unknown effect at this stage (?).		N/A	N/A

[15] https://naturalengland-defra.opendata.arcgis.com/datasets/5d2477d8d04b41d4bbc9a8742f858f4d_0?geometry=-43.957%2C48.023%2C39.671%2C57.306
[16] https://www.energyservicebristol.co.uk/business/heat-networks/