

Appendix 2: Site Constraints

Constraint	Possible Impact	Mitigation	Possible Approach through the AAP
Potentially Contaminated Land from previous industrial uses	As well as the potential hazards to health, these problems can also be a major constraint to the redevelopment of the sites affected, adding to the overall cost of development in an area where the viability of the scheme may already be marginal.	Mitigation of sites is possible but the cost on development must be considered	Identify the sites likely to be affected by these issues so any potential impact on development can be fully considered. The AAP can also explore any potential for securing funding for the cleaning up of contaminated sites.
Source Protection Zone (SPZs)	The Environment Agency have identified Source Protection Zones for groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk. The maps show three main zones (inner, outer and total catchment) and a fourth zone of special interest, which we occasionally apply, to a groundwater source.	The zones are used in conjunction with Groundwater Protection Policy to set up pollution prevention measures in areas which are at a higher risk, and to monitor the activities of potential polluters nearby.	Work with the Environment Agency to establish if any further work is needed through the AAP to mitigate against the risks to groundwater sources.
Mineral Resources of Local and National Importance (coal, limestone, sand and gravel) – see mineral resource map M1 in the SAD document for details of where these resources can be found in the Town Centre	BCCS defines broad extent of mineral safeguarding area (MSA) covering minerals of potential local economic importance – this covers part of the Town Centre. MSA boundaries to be defined in detail through SAD and AAP, using published resource maps and other information where available. In line with BCCS Policy MIN1, any	All potential site allocations of 5ha and over in the mineral resource areas within the Town Centre must consider feasibility of “prior extraction” of any minerals present. BCCS Policy MIN1 includes criteria for evaluating proposals and requires supporting information, such as a feasibility study, to be provided with a planning application. As they are a statutory	Feasibility studies need not be carried out in advance of allocating a site in the AAP – they can be done at the stage when a planning application is being prepared. Where no feasibility study has been carried out, site allocation policies in the AAP covering sites falling within the BCCS Policy MIN1 threshold will need to include a requirement for this to be done before an application is

	<p>potential site allocations on sites of 5ha and over in the MSA must consider feasibility of “prior extraction” of minerals in advance of redevelopment, to prevent needless sterilisation of mineral resources of potential local and national importance. In practice, it is only likely to be feasible to extract minerals in advance of development where they are relatively close to the surface, and where extensive land remediation is also required, so that mineral working can take place as part of a remediation scheme. In some situations, this constraint could be addressed in parallel with other constraints such as historic coal and limestone mining and ground contamination, and the sale or re-use of minerals extracted might be able to offset some of the costs of remediation. Coal and sand and gravel are the minerals most likely to have potential to be worked as part of a “prior extraction” scheme.</p>	<p>consultee, the Coal Authority are likely to expect feasibility of prior extraction of coal to have been considered before sites are allocated, and could object to a proposal if this has not been looked at. See Coal Authority web pages for good practice guidance on how to do a feasibility study for coal, similar issues would apply in the case of other minerals. The study will demonstrate whether or not it is practicable or feasible to extract minerals in advance of development.</p>	<p>submitted.</p>
<p>Historic coal, limestone mining and clay extraction – see Coal Mining Development Referral Area and Limestone Consideration Area</p>	<p>Unstable land conditions on some previously developed sites There will be a cost implication if evidence shows that remedial work is required, which could be a constraint on viability.</p>	<p>The history of any potential site allocations within the Coal Mining Development Referral Area and Limestone Consideration Area should be checked to see if there are records of previous mining activity. The Coal Authority has provided the Council with maps showing the location of coal mine entries and previous</p>	<p>If we are considering allocating sites in the Coal Mining Development Referral Area and Limestone Consideration Area, as a minimum we should probably obtain a coal mining report and/ or a report from the Council’s Geotechnical Team on records of previous limestone mining before making a final decision on whether to</p>

		<p>surface workings, and the Council's Geotechnical Team also holds details of previous limestone workings. The Coal Authority can also provide coal mining reports if required but there is a charge for this. As they are a statutory consultee the Coal Authority will expect the implications of previous coal mining activity to have been considered before sites are allocated, and could object to a proposal if this has not been looked at. See Coal Authority web pages for good practice guidance on how to do a coal mining risk assessment, Council's Geotechnical Team should be able to advise on risk assessments for previous limestone working sites.</p>	<p>allocate. This will enable us to consider the potential risks, works that might have to be done to enable development, and sites where viability might be an issue. Where evidence shows previous mining has taken place on sites to be allocated in the AAP, site allocation policies will need to set out requirements for any further feasibility work or site investigations to be done before an application is submitted, and for the application to include details of remediation works to be carried out.</p>
Ford Brook Tunnel	May prevents development in certain areas	Engineering and design measures to take account of structural loading and appropriate easements and covenants.	Identify the sites likely to be affected by these watercourses
Fluvial Flood Risk	The main watercourse under the town centre (Ford Brook) was culverted in the late 1970s/ early 1980s and whilst this provides a reasonable degree of flood protection, in extreme events or if a blockage occurs the town centre could be affected by flooding.	Sequential approach to new development to place development in the lowest flood risk zones. Appropriate mitigation and resilience measures given the nature of the risk, such as flood resilient design and emergency planning and business continuity	With climate change, the risk of flooding is likely to increase and the long-term sustainability and management of watercourses in the town centre needs to be considered as part of the AAP. This includes identifying the remaining asset life of current culverts and tunnels and identifying opportunities to undertake and fund flood risk measures for the lifetime of proposed developments.
Surface Water Flooding	Parts of the town centre are susceptible to surface water flooding	Mitigation measures, such as flood resilient design, sustainable drainage	Identify sites likely to be affected by surface water flooding, look for

	due to the natural topography, complicated by the presence of complex drainage systems under the ownership of different individuals and organisations.	systems, master planning to open up surface water flow paths and emergency planning and business continuity.	opportunities to open up surface water flow paths and integrate sustainable drainage systems into public realm improvements.
Fragmented land ownership	There are a number of different land owners within the AAP boundary which can sometime be an issue when trying to bring forward a comprehensive approach to the development of the centre	Council has intervened to assemble some key development opportunities, for example in Gigaport	If resources are available, the Council will continue this approach, and in other circumstances would be willing to use its compulsory purchase powers to enable development
Air quality from existing industrial occupiers and traffic.	Movement to and from the town centre, in particular across Littleton Street needs to be improved.	The Council is working with various partners to explore possible mitigations that could be used in the town centre.	Through the AAP various methods of reducing emissions and the possible impacts will be explored.