



Research Office
Legislative Council Secretariat

Fact Sheet

Brownfield development

FS02/16-17

1. Introduction

1.1 There is currently no formal or standard definition of brownfield sites in Hong Kong.¹ The term generally refers to agricultural or rural land in the New Territories which is deserted and has been changed for open storage, container yards, depots, rural industries, recycling yards etc., of which the uses are incompatible with the surrounding environment. To develop brownfield sites, the process might face challenges and barriers on areas such as land resumption and clearance, compensation and relocation arrangements. Adequate infrastructural and community facilities are also required to support the brownfield development.

1.2 At its meeting to be held on 24 January 2017, the Panel on Development will discuss, among other things, the overall land supply situation in Hong Kong including development of brownfield sites. To facilitate Members' deliberation on the subject matter, this fact sheet studies the facilitation measures adopted by the United Kingdom ("UK") and the United States ("US") for brownfield development in the country.

1.3 This fact sheet confines the study of the UK to England as it has largest amount of brownfield land in the country.² In addition, the reuse of brownfield land has been a policy objective of England since 1998. In 1998, the government set a target for England of 60% of all new housing developments to be built on brownfield land by 2008,³ in a move to make

¹ See Development Bureau (2015).

² According to Campaign to Protect Rural England (2014), at least 45 100 hectares of brownfield land in England were identified in 2012.

³ The target was fairly achievable. The proportion of new housing being built on brownfield land in England rose steadily from 55% in 1989 to a peak of 81% in 2008. This then dropped to 68% in 2011 before the then ruling Coalition government abolished the 60% target in 2012. See Chartered Institution of Water and Environmental Management (2016).

better use of such sites.⁴ Most recently, the ruling Conservative government announced a range of policies for brownfield development in England. These include (a) streamlining and accelerating planning approval process for brownfield developments; (b) enacting the Housing and Planning Act 2016; and (c) introducing Starter Homes programme to drive housing development on brownfield land.

1.4 In the US, the federal government announced the Brownfields Program in 1995 to provide grant, guidance and tax incentives to support brownfield development in the country. The programme does not only confine to the reuse of former polluted brownfield sites, but also seeks to foster economic development and create business and job opportunities. The enactment in 2002 of the Small Business Liability Relief and Brownfields Revitalization Act, commonly referred to as the Brownfields Law, has further strengthened the Brownfields Program. In particular, the Brownfields Law provides for financial assistance to assess and clean up brownfields, clarifies liability protections,⁵ and provides tax incentives for states and communities to induce brownfields redevelopment.

1.5 The Brownfields Program has achieved many results since its inception in 1995. For example, cumulative investments have leveraged some US\$22 billion (HK\$171 billion) from a variety of public and private sources for clean-up and redevelopment activities. These investments have generated 116 000 jobs nationwide.

2. Brownfield development in the United Kingdom

2.1 In the UK, a brownfield site is generally referred to the previously developed land with future potential for being redeveloped. One of the core planning principles in the National Planning Policy Framework is to encourage

⁴ In addition to the 60% target, the UK government subsequently introduced the new National Land Use Database ("NLUD") in 2006. NLUD looked at the brownfield situation comprehensively, and had a five category classification for brownfield land which not only included vacant and derelict land, but also covered "buildings with redevelopment potential". Local planning authorities were required to report the amount and status of brownfield land annually to NLUD. However, NLUD and its reporting requirement were abolished in 2012. See Chartered Institution of Water and Environmental Management (2016).

⁵ The Brownfields Law exempts innocent developers from liability for the contamination that existed at a brownfield site prior to the purchase of the property. In effect, a property owner who neither caused nor contributed to the contamination is not liable for the clean-up.

effective reuse of brownfield land for housing, economic growth and leisure uses, thereby protecting greenfield areas⁶ and contributing to community wellbeing by bringing underused or derelict land back into use. The National Planning Policy Framework, which was published on 27 March 2012, sets out the UK government's planning policies for England and how these are expected to be applied.

2.2 Brownfield development in the UK falls within the purview of the Homes and Communities Agency, a non-departmental public body working with government and other public bodies to unlock and accelerate the release of surplus public land for the creation of new homes and employment opportunities. This in particular includes developing and implementing strategies to bring brownfield land back into productive use. Indeed, the Homes and Communities Agency absorbed the functions of English Partnerships (the then national regeneration agency for England) in 2008 and took over the latter's auspices on brownfield development.

2.3 One of the largest brownfield development projects in England is the Thames Gateway project, which commenced around 2005 and is still an ongoing urban regeneration scheme. Thames Gateway, a former site of docks, captures 4 000 hectares of brownfields along the riverbank and mouth of the River Thames. It is also the site where the sporting complex Queen Elizabeth Olympic Park and financial centre Canary Wharf are located.

2.4 The largest housing development in Thames Gateway is at Barking Riverside. Commenced in 2007, the development project plans to provide 10 800 new homes in four phases for accommodating a total of 29 000 people. As a condition of the planning permission granted by the government, the development must ensure that at least 30% of the housing is family accommodation and 41% affordable housing.

Current policy

2.5 Following the general election in May 2015, the ruling Conservative government announced a range of policies for brownfield development. For example, it made a commitment to get local development orders in place on 90% of brownfield land suitable for housing by 2020. Local development orders are made by local planning authorities to simplify the planning process by allowing certain developments to take place without the need for planning

⁶ Greenfield refers to previously undeveloped land or so called virgin land.

applications to be made. This provides an incentive for developers to proceed without the time and cost implications of having to submit a planning application.

2.6 In May 2016, the Housing and Planning Act was passed by Parliament to step up the efforts on brownfield development. The new legislation provides for local authorities to hold a register of brownfield sites with development potentials. It also allows for the automatic permission in principle to housing development of the brownfield sites on statutory registers by way of local development orders, in a bid to reduce delays and uncertainty for brownfield development.

2.7 Apart from the above administrative and legislative measures, the government has also made available financial schemes to drive housing development on brownfield land. For example, the government announced the Starter Homes programme in December 2014 under which first-time buyers under the age of 40 in England can register to buy new homes built on brownfield land at a discount of not less than 20% off the market price.⁷ More recently in January 2016, the government set up a £1.2 billion (HK\$12.6 billion) Starter Homes Land Fund to assist local authorities to acquire and remediate brownfield sites, with an aim of providing at least 30 000 affordable housing exclusive for first-time buyers.

Public engagement

2.8 As brownfield development impacts affected communities and often involves change of land use, extensive public engagement is an integral part of brownfield development in England. There is a statutory requirement for the local planning authorities to conduct public consultation exercises before approving any brownfield development projects.⁸ The local planning authorities are also required to publish the development plans of brownfield development projects for a prescribed period of time to invite members of the public to express their views and comments. Added to this, they are required to follow the development guidelines of the national planning policy to evaluate the opinions received and put in place an appeal system to handle any disputes.

⁷ The government originally sought to provide 100 000 new homes for eligible first-time buyers. In April 2015, it expanded the Starter Homes programme to deliver 200 000 homes by 2020.

⁸ See Planning and Compulsory Purchase Act 2004.

3. Brownfield development in the United States

3.1 In the US, a brownfield site is generally referred to abandoned industrial land which has been contaminated and requires clean-up before redevelopment. According to the federal agency, the Environmental Protection Agency ("EPA"),⁹ cleaning up and reinvesting in brownfield properties fosters economic development, creates businesses and job opportunities, improves tax revenue, takes development pressures off undeveloped land, and protects the environment.

3.2 Brownfield development in the US is led by EPA, with support from various state and local authorities. The Agency has initiated the Brownfields Program since 1995 to incentivize states, communities and other stakeholders to work together on preventing, assessing, safely cleaning up, and sustainably reusing brownfields. In particular, the programme features the provision of grants, guidance and tax incentives to support brownfield development.

3.3 One of EPA's successful brownfield redevelopment projects is the public-private-partnership project at Pittsburgh of Pennsylvania. This three-phase project was initiated by the Urban Redevelopment Authority of Pittsburgh in 1995 with the plan of turning 97 hectares of land from abandoned steel and iron factories into a mixed commercial and residential area. The project has completed its first and second phases, with funding sourced from the public sector (for contamination clean-up and infrastructure development) and the private sector (for development of new housing units).

Current policy

3.4 EPA has put in place various grants schemes to provide direct funding for brownfields assessment, clean-up, environmental job training and development. The funding helps incentivize brownfield development which would have otherwise been financially unviable due to the huge upfront costs incurred in clearing contamination and preparing for the project. EPA's grants schemes include:¹⁰

⁹ See Environmental Protection Agency (2016a).

¹⁰ Ibid.

- (a) *Assessment Grants* to provide funding for a grant recipient to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites;
- (b) *Cleanup Grants* to provide funding for a grant recipient to carry out clean-up activities at brownfields sites;
- (c) *Revolving Loan Fund Grants* to enable states to make low interest loans to carry out clean-up activities at brownfields properties;
- (d) *Brownfield Job Training Grants* to provide environmental training to residents living in communities impacted by brownfields; and
- (e) *Area-wide Planning Grants* to provide funding to communities to research, plan and develop implementation strategies for an area affected by one or more brownfields.

3.5 Apart from EPA's grants, the federal government also provides Low Income Housing Tax Credits ("LIHTCs") as incentives for private developers to build affordable housing on brownfield sites. As tax credits, LIHTCs provide developers with a dollar-for-dollar reduction in their federal tax liability.^{11,12} To qualify for LIHTCs, a project must have at least 20% of its units rented to households with incomes at or below 50% of the area median income, or at least 40% of its units rented to households with incomes at or below 60% of the area median income.

Public engagement

3.6 Public engagement is also a core strategy adopted by the government to solicit public views on brownfield development at the local level. For those brownfield development projects applying for EPA grants, one of the assessment criteria is to evaluate to what extent the proposed development plans have addressed the community needs and public concerns. EPA also requires the project proponents to, among other things, (a) conduct early, frequent and meaningful community involvement; (b) encourage and enable the

¹¹ Tax credits are more attractive than tax reductions as the latter only reduces taxable income and therefore provides a lesser tax benefit.

¹² For developers, development capital can be raised by selling the right to future tax credits to an investor or a group of investors in exchange for upfront cash.

public to get involved; (c) listen carefully to what the public is saying; (d) consider changing the development plan when necessary; and (e) take remedial actions if required to address community's concerns.¹³

4. Concluding remarks

4.1 The UK and the US have made use of a multi-pronged approach to reduce the barriers to brownfield development. The UK focuses on setting a target for housing development on brownfield land in England, while the US targets more at providing various financial incentives such as grants and tax credits to drive brownfield development.

4.2 Notwithstanding the above, the UK and the US are common in undertaking the following measures to reduce barriers to brownfield development: (a) setting up a dedicated authority to spearhead brownfield development; (b) implementing facilitation measures by the dedicated authority and local governments; (c) strengthening the efforts on brownfield development through new and existing legislation; (d) setting up publicly-available databases on brownfield sites to increase transparency to developers and communities; and (e) undertaking early and inclusive public engagement and making it as an integral part of brownfield development.

¹³ See Environmental Protection Agency (2016b).

References

1. Campaign to Protect Rural England. (2014) *From wasted space to living spaces*. Available from: <https://www.cpre.org.uk/resources/housing-and-planning/housing/item/download/3847> [Accessed January 2017].
2. Chartered Institution of Water and Environmental Management. (2016) *Brownfield Development*. Available from: <http://www.ciwem.org/wp-content/uploads/2016/04/Brownfield-Development.pdf> [Accessed January 2017].
3. Department for Communities and Local Government. (2014) *Local development orders for housing development on brownfield land*. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/341673/Local_development_orders_for_housing_development_on_brownfield_land_-_Invitation_to_bid.pdf [Accessed January 2017].
4. Department for Communities and Local Government. (2016) *National Planning Policy Framework*. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Accessed January 2017].
5. Development Bureau. (2015) *Developing brownfield sites*. Available from: http://www.devb.gov.hk/en/home/my_blog/t_index_id_109.html [Accessed January 2017].
6. Environmental Protection Agency. (2008a) *Anatomy of Brownfields Redevelopment*. Available from: https://www.epa.gov/sites/production/files/2015-09/documents/anat_bf_redev_101106.pdf [Accessed January 2017].
7. Environmental Protection Agency. (2008b) *Top 10 Questions to Ask When Buying a Superfund Site*. Available from: <https://www.epa.gov/sites/production/files/documents/top-10-ques.pdf> [Accessed January 2017].
8. Environmental Protection Agency. (2015) *2015 Brownfields Federal Programs Guide*. Available from: <https://www.epa.gov/sites/production/files/2015-09/documents/brownfields-federal-programs-guide-2013.pdf> [Accessed January 2017].

9. Environmental Protection Agency. (2016a) *Brownfield Overview and Definition*. Available from: <https://www.epa.gov/brownfields/brownfield-overview-and-definition> [Accessed January 2017].
10. Environmental Protection Agency. (2016b) *Superfund Community Involvement Handbook*. Available from: <https://sempub.epa.gov/work/HQ/100000070.pdf> [Accessed January 2017].
11. Homes and Communities Agency. (2016) *Brownfield and public land*. Available from: <https://udc.homesandcommunities.co.uk/ourwork/register-surplus-public-sector-land> [Accessed January 2017].
12. *Planning and Compulsory Purchase Act 2004. Chapter 5*. London, Her Majesty's Stationery Office.

Research Office
Information Services Division
Legislative Council Secretariat
16 January 2017
Tel: 2871 2145

Fact sheets are compiled for Members and Committees of the Legislative Council. They are not legal or other professional advice and shall not be relied on as such. Fact sheets are subject to copyright owned by The Legislative Council Commission (The Commission). The Commission permits accurate reproduction of fact sheets for non-commercial use in a manner not adversely affecting the Legislative Council, provided that acknowledgement is made stating the Research Office of the Legislative Council Secretariat as the source and one copy of the reproduction is sent to the Legislative Council Library. The paper number of this issue of Fact Sheets is FS02/16-17.