Smart City – Good Practice

Biodiversity, Buildings, Energy, Sustainable economic growth, Transport and mobility

Whitehill & Bordon regeneration project

Bordon & Whitehill, United Kingdom

Sustainable city regeneration project

The regeneration of Whitehill & Bordon is meant to transform the area into a low carbon, green and sustainable city. The town is expected to grow from 6,000 homes to over 9,000 when fully built, and new jobs and a new city centre will be created. Inclusion processes have been used to develop a master plan for the area, including projects for renewable and efficient energy supply, transport solutions, nature conservation and new business and work opportunities [6].

Country/ City Profile

Country		City	
Population (2014)	63 million [2]	Population (2011)	17,000 [4]
Land & water area (km²)	245,000 [2]	Land area (km²)	4,7 [4]
GDP per capita (2014, US$, at purchasing power parity)	39,762 [1]	GDP per capita (2014, US$, at purchasing power parity	n/a
Region	Northern Europe	Region	South England/ Inland

Region's physical geography		
	Location	✓ Located in South England ✓ Low altitude
	Climate	✓ Tempered climate, mean annual temperature is 10.9°C [3] ✓ Total 757 mm/year (2015) annual rainfall [3]

Initiating context

The relocation of the Army's Defence School of Electronic and Mechanical Engineering from Whitehill & Bordon to Wiltshire in 2015 freed up approximately 100 hectares of land, that will be used to regenerate the area into a sustainable and green town. The plan includes 3,350 new homes, 5,500 new jobs, new schools, a new city centre and 150 hectares of protected natural environment for recreation [3]. Partners in the transformation, apart from private builders, are East Hampshire District Council (EHDC), Hampshire County Council (HCC), the Defence Infrastructure Organisation (DIO), the Homes and Communities Agency (HCA) and Enterprise M3 Local Enterprise Partnership (LEP).

Development areas

The following areas will be developed in the regeneration project [5]. Additional land sites will be sold or let, and industrial warehouse units will be available for rent.

Project development area	Area (hectares)	Type of development
Quabec Park	3.26	100 new homes and 1,500 m^2 of employment space. 20 of the homes will be built to the Code for Sustainable Homes Level 5
Louisburg Barracks	29	500 homes and 15,300 m^2 employment space
Town centre	45 units from 60 - 24,000 m^2	2,400 homes and a range of buildings for interim, short term use - industrial and training facilities

Energy projects

Many ambitios energy projects are planned for the area, including:

- Energy efficiency in new and existing buildings
- Electric vehicles for private and public transport
- Micro generation of electricity through PV panels, solar thermal and biomass applications
- Smart grids
- Upgrade of the gas grid
- A wood fuel supply chain

Other ideas under investigation are a combined heat and power plant and a district heating network, a wind power farm and growing energy crops [7]. The aim is for the community to be carbon neutral by 2036.

Traffic and transport

The city wants to achieve a better share of public transport, biking and walking in overall transport, by reducing the needs to travel outside town, enabling sustainable transport options and managing car demand in and outside of the town. The target is that no more than 50% of all trips should be made by car. Curently, that number is 74%. This is a challenge, since the city does not have a train station. Instead, high quality bus routes will be at the core of the emerging transport strategy; with the target of a 13% modal share [8]. The target for walking trips is 25%, biking 8% and train 1%.

Biodiversity [10]

The city also has targets for a net increase in biodiversity and to safeguard protected natural sites. 200 hectares of greenspace will be actively managed to reach this goal. Other actions include:

- Development of access management plans for protected sites
- Air quality assessments
- Education of local communities with the aim to improve behavior and reduce the human impact on land close to housing areas
- Long term monitoring of the natural environment

Inclusion and community engagement

A community engagement strategy has been developed for the regeneration [9]. It builds on the four pillars of providing information, effective consultation, active involvement and developing communities. A consultative tier called “our voice”, comprising a number of task groups, has also been set up.

References

[1] World Bank (2015): GDP per capita, PPP: http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD

[2] UK key facts: http://www.educationuk.org/global/articles/uk-key-facts/ (visited 2015-01-20)

[3] Met Office regional values, annual: http://www.metoffice.gov.uk/climate/uk/summaries/2015/annual/regional-values (visited 2015-01-20)

[4] City population: http://www.citypopulation.de (visited 2015-01-20)

[5] Whitehill & Bordon; the sites: http://www.whitehillbordon.com/wp-content/uploads/2014/10/thesites.jpg (visited 2015-01-20)

[6] Regerneration plan: http://www.whitehillbordon.com/wp-content/uploads/2014/10/wb-regeneration-0714-WEB.pdf

[7] Energy service delivery study: http://issuu.com/easthampshire/docs/110930_wb_final_draft_energy_service_delivery_stud?e=1601463/2751037

[8] Revised master plan: http://whitehillbordon.com/home/the-revised-masterplan/

[9] Community engeagement strategy: http://www.whitehillbordon.com/wp-content/uploads/2014/09/200214-Community-engagement-strat-V3-_3_.pdf

[10] Biodiversity targets: http://whitehillbordon.com/environment-2/biodiversity-2/

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