

グリーンインフラからの アプローチ：英国 気候変動適応＋内水氾濫対策

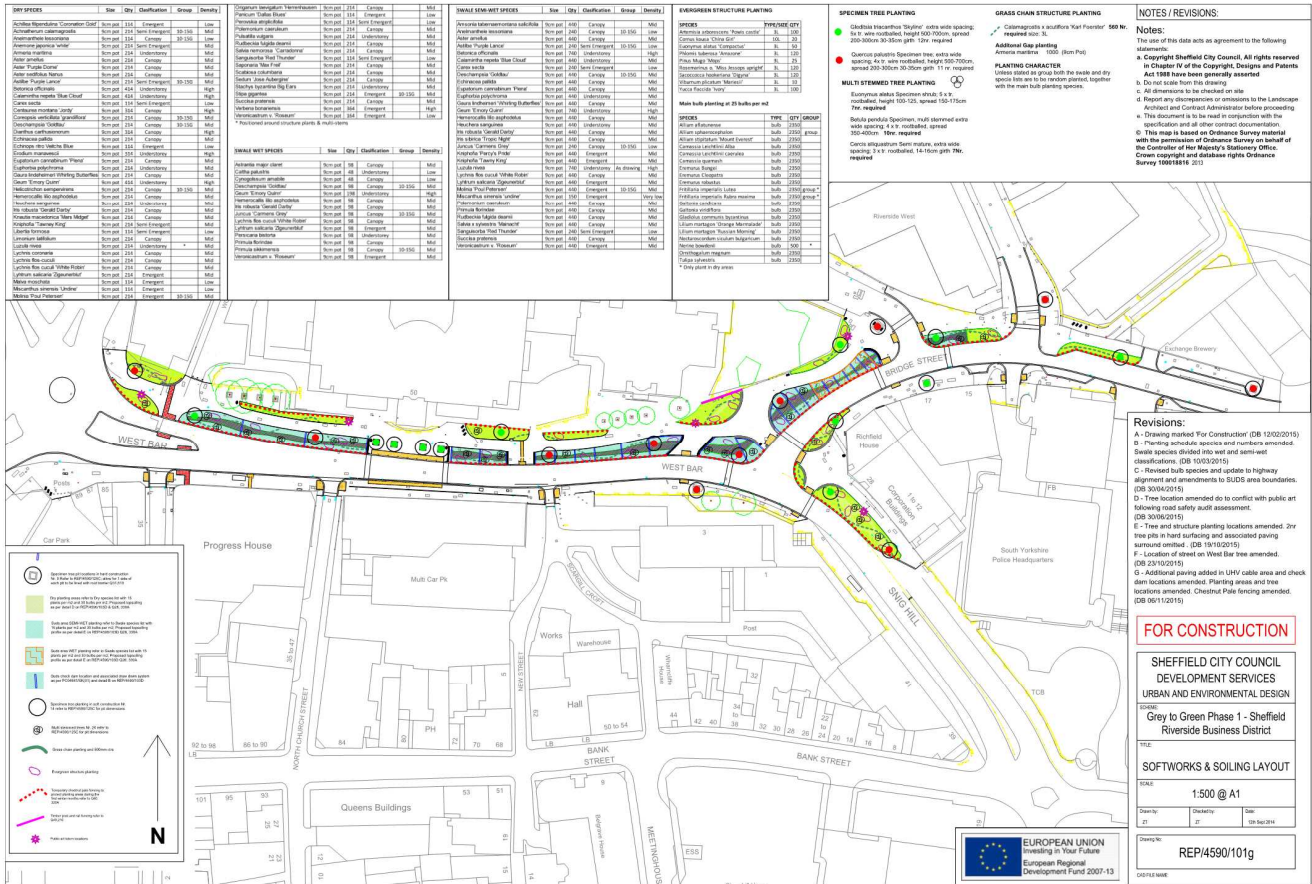
木下 剛

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話題

- 道路における取り組み
- 住宅地における取り組み
- 河川及び公園における取り組み
- 洪水リスク評価と開発許可制度
- 計画・事業の戦略性
- 内水氾濫対策としてのSuDS (Sustainable Drainage System)

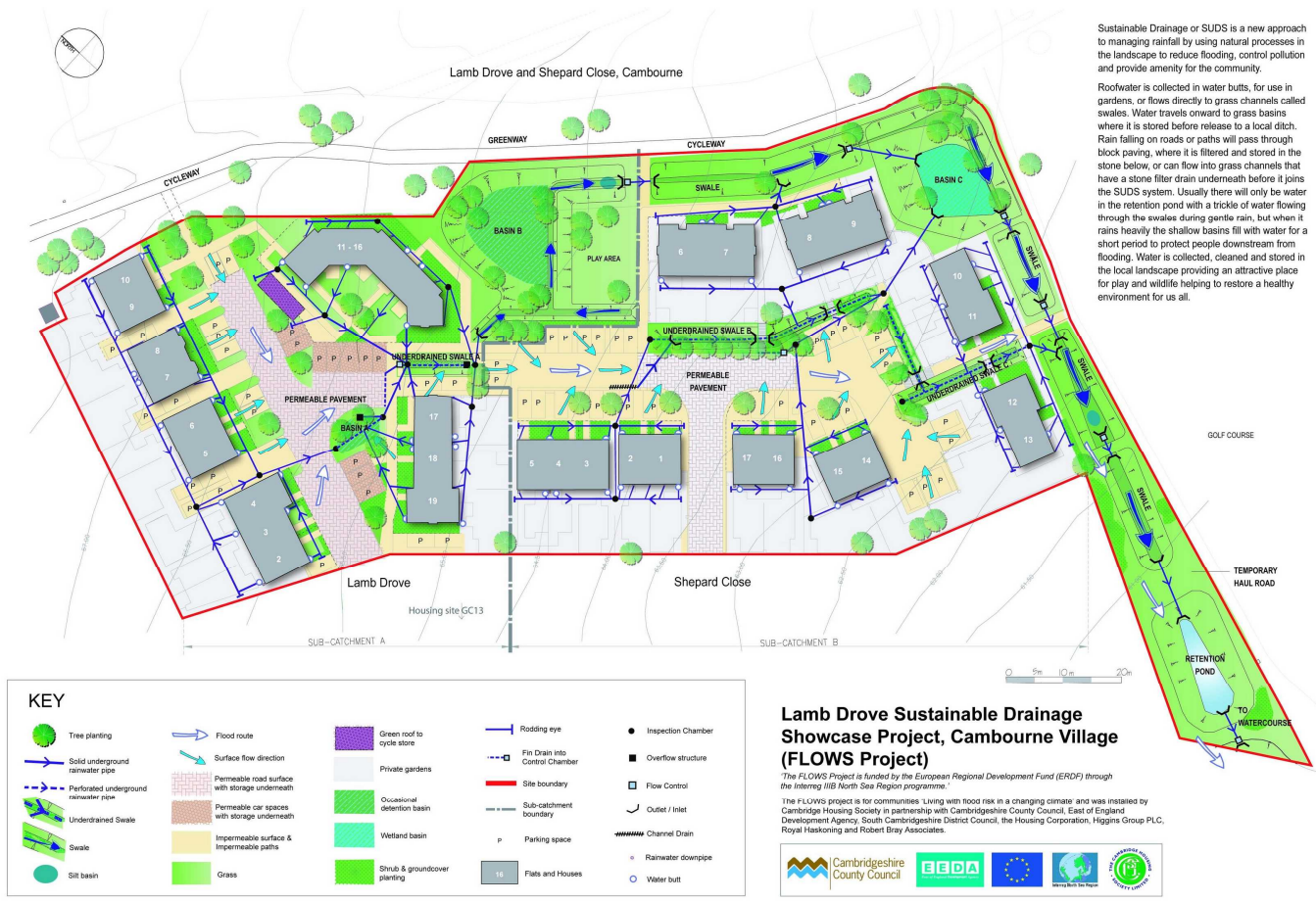
Grey to Green Phase 1



Source: Sheffield City Council



Grey to Green Phase 1

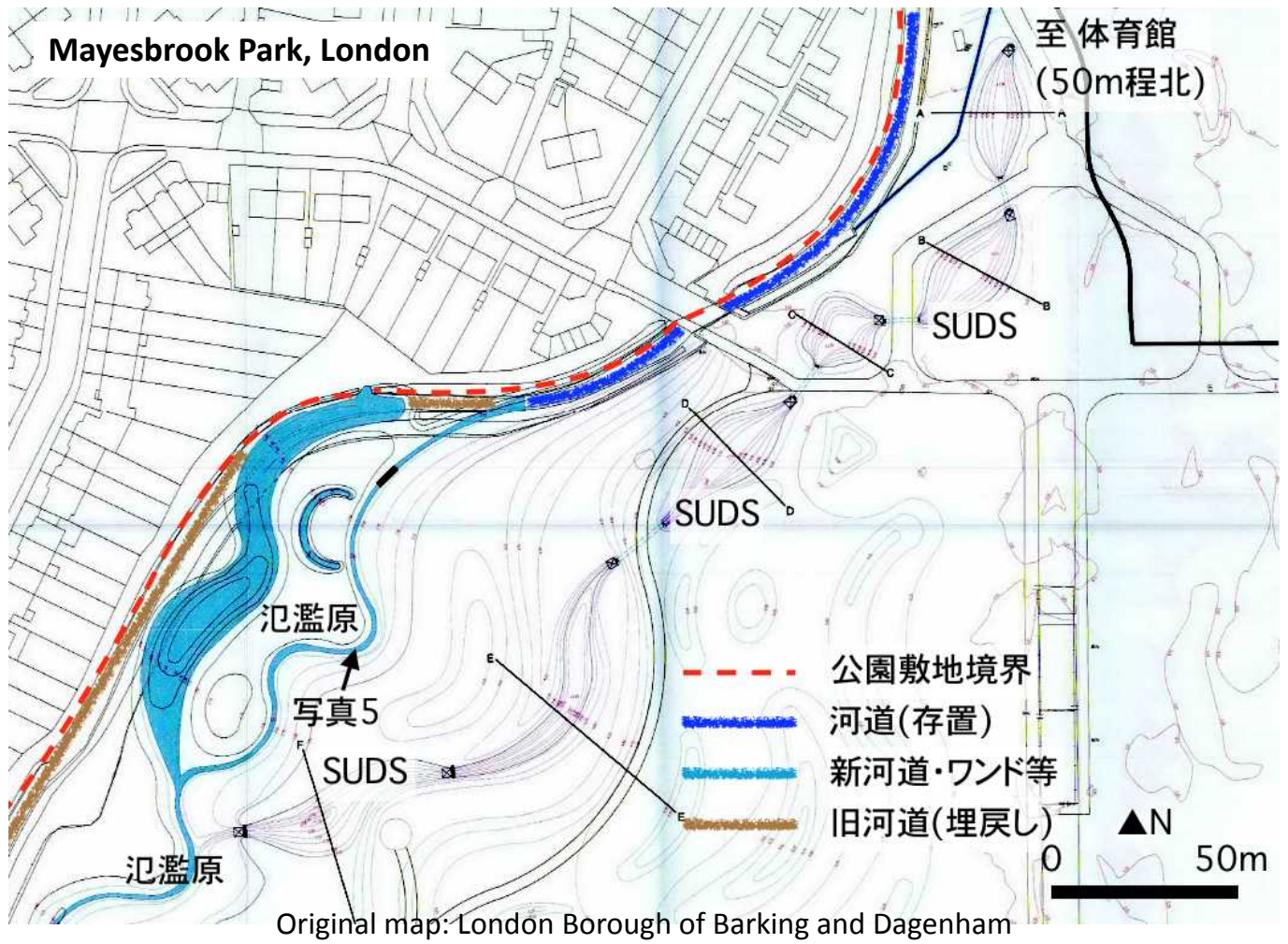


Sustainable Drainage or SUDS is a new approach to managing rainfall by using natural processes in the landscape to reduce flooding, control pollution and provide amenity for the community.

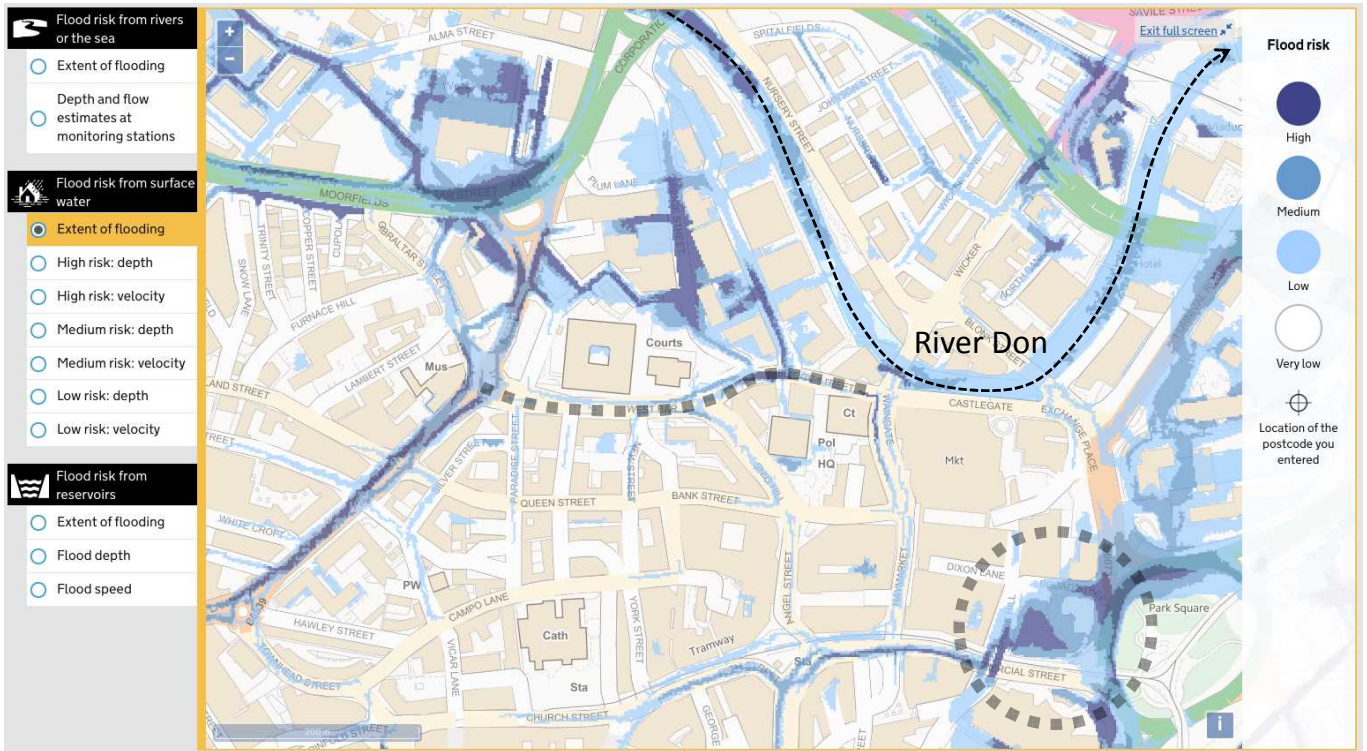
Roofwater is collected in water butts, for use in gardens, or flows directly to grass channels called swales. Water travels onward to grass basins where it is stored before release to a local ditch. Rain falling on roads or paths will pass through block paving, where it is filtered and stored in the stone below, or can flow into grass channels that have a stone filter drain underneath before it joins the SUDS system. Usually there will only be water in the retention pond with a trickle of water flowing through the swales during gentle rain, but when it rains heavily the shallow basins fill with water for a short period to protect people downstream from flooding. Water is collected, cleaned and stored in the local landscape providing an attractive place for play and wildlife helping to restore a healthy environment for us all.



Lamb Drove, Cambourne Village, Cambridgeshire



内水氾濫リスクマップ Flood risk from surface water



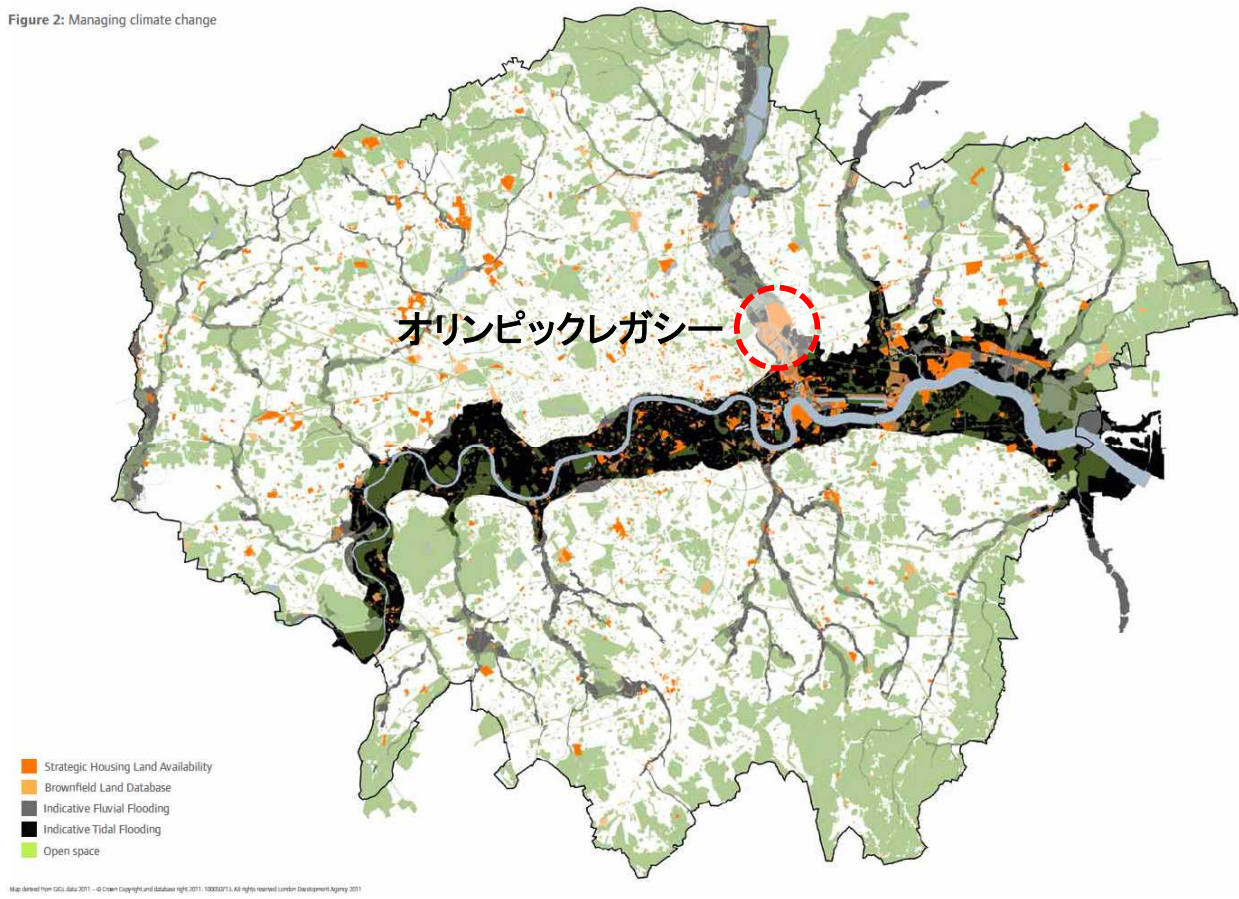
Environment Agency, GOV. UK

<https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>



全ロンドングリーングリッド All London Green Grid, 2012

Figure 2: Managing climate change



East Village and Queen Elizabeth Olympic Park, London

The SuDS Manual

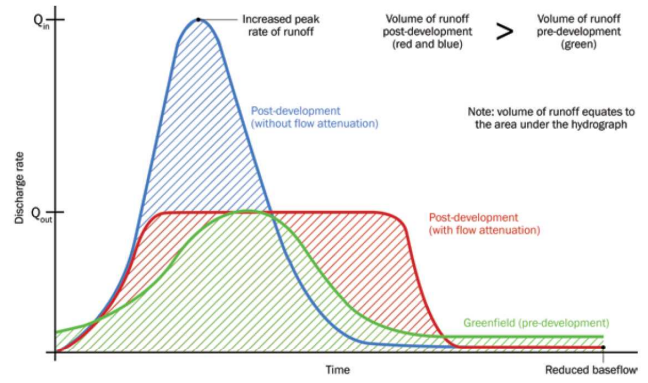


Figure 3.1 Example of a runoff hydrograph

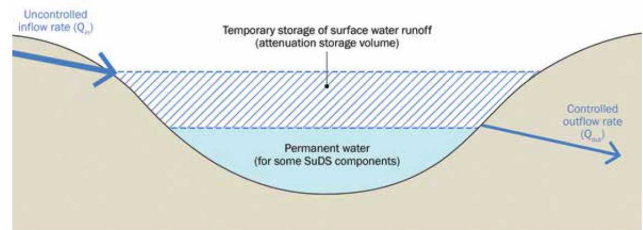


Figure 3.2 Controlling runoff rates using attenuation storage



SuDS Advisory Body, Lead Local Flood Authorities (LLFA) Flood & Water Management Act 2010

