

Designing biodiversity into urban parks and green infrastructure



Acknowledgements

- Thanks to LDA Design for providing permission to use a number of images and drawings associate with Burgess Park, the Olympic Park and Molzhaninovo.

Working in the urban environment

- Urban green space is often at a premium.
- As such it usually has to serve a multitude of functions: sport use, play, transport, events space, flood management or all of these?
- There is therefore competition for space and resources.

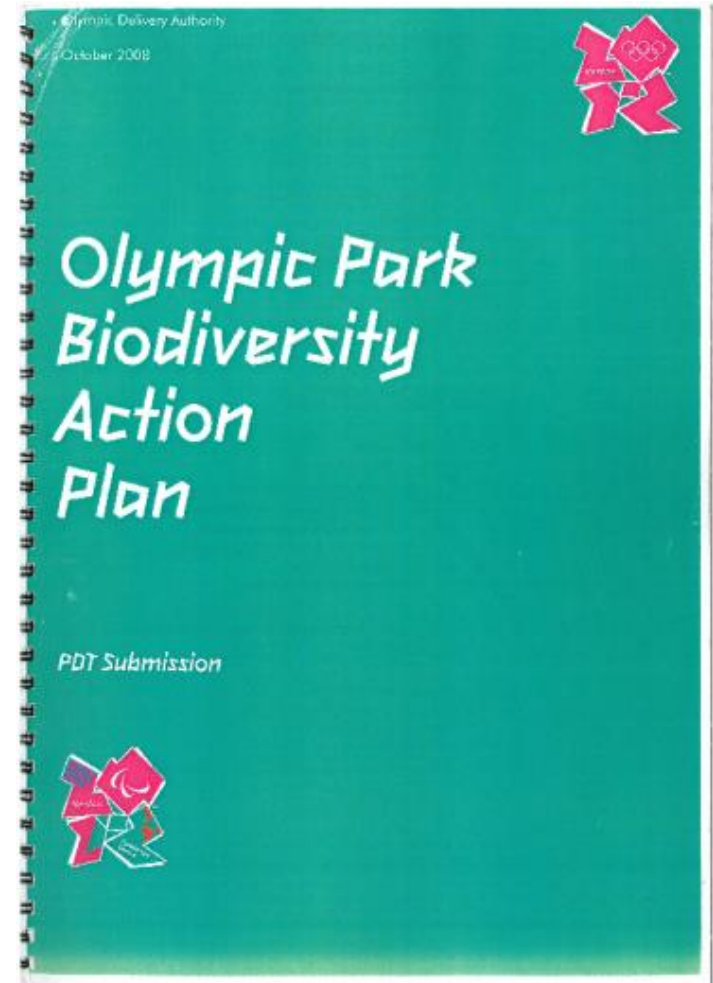


Wider factors influencing design

- Client aspirations.
- Project objectives.
- Local opinion (local community and planning authority), what is expected?
- Budget for construction and on-going management.
- Design guidance and restrictions from multiple disciplines e.g. crime prevention through environmental design.
- Professional team aspirations and their ways of working.
- Status and influence of the ecologist within the project.

Influencing the design process

- Seek an early engagement with the project and the project team.
- Identify, explain and seek agreement and buy in for biodiversity objectives and targets in discussion with the professional design team, client and external consultees.
- Engage actively in design team meetings, be an advocate for biodiversity design, but also recognise and work with competing objectives.



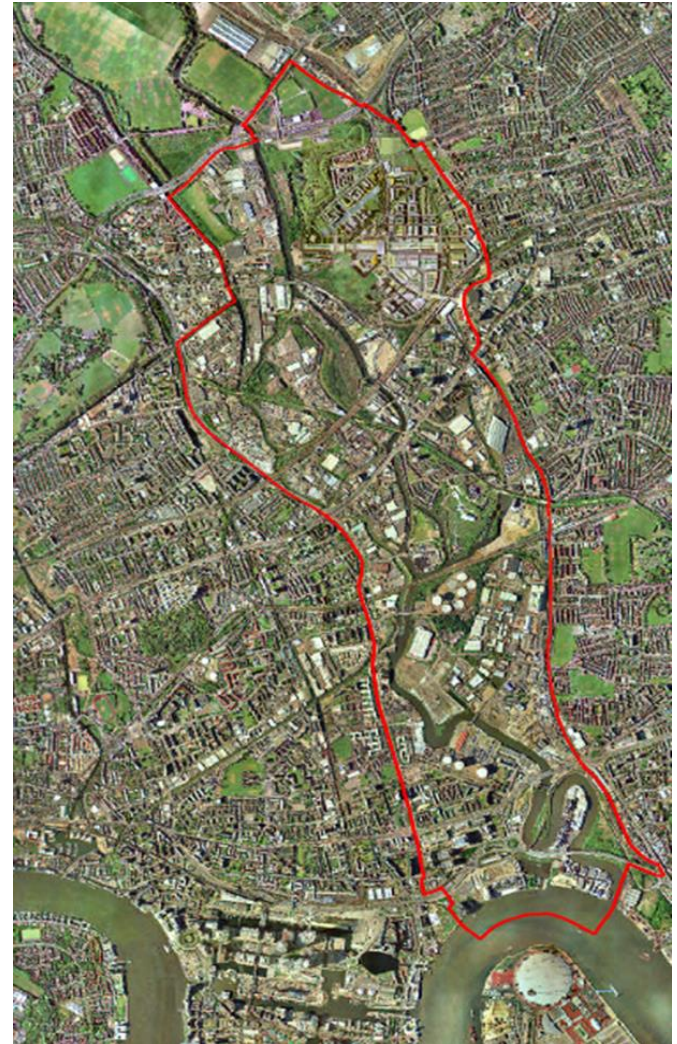
Influencing the design process

- Seek to influence design by recognising and maximising multi-functional benefits from biodiversity value to ecosystem service – e.g. swales and SUDs.
- Understand wider project objectives methods and thinking of fellow professionals.
- Establish design principles and guidance to assist fellow professional team disciplines and show how these can maximise biodiversity
- Provide solutions and designs that work ecologically and practically



A biodiversity framework

- Place the site in the wider strategic spatial context and identify and explain the functionality of the site within the green network.
- Set and agree targets for priority habitats and species (local and national).
- Promote maximising biodiversity value in all habitat and land-uses, including formal garden and landscape design, amenity lawns and buildings.
- Promote integration with more urban elements of the local environment – green streets, rain gardens and vegetated architecture.



Practical design considerations

- Understand and explain the ecological requirements of target species and habitats.
- Soils, topography, hydrology.
- Locations for wildlife installations and park users.
- Health and Safety and CDM Regulations and your role as a designer.
- On-going management commitments.
- Climate change.



Designing in Biodiversity

- ‘Naturalising’ existing habitats.
- Maximising biodiversity in formal landscape designs: vegetation structure and species selection.
- Integrating species installations with habitats and structures.
- Making links within the green space and into the built environment.
- Future proofing – climate change, land use and potential invasive species.

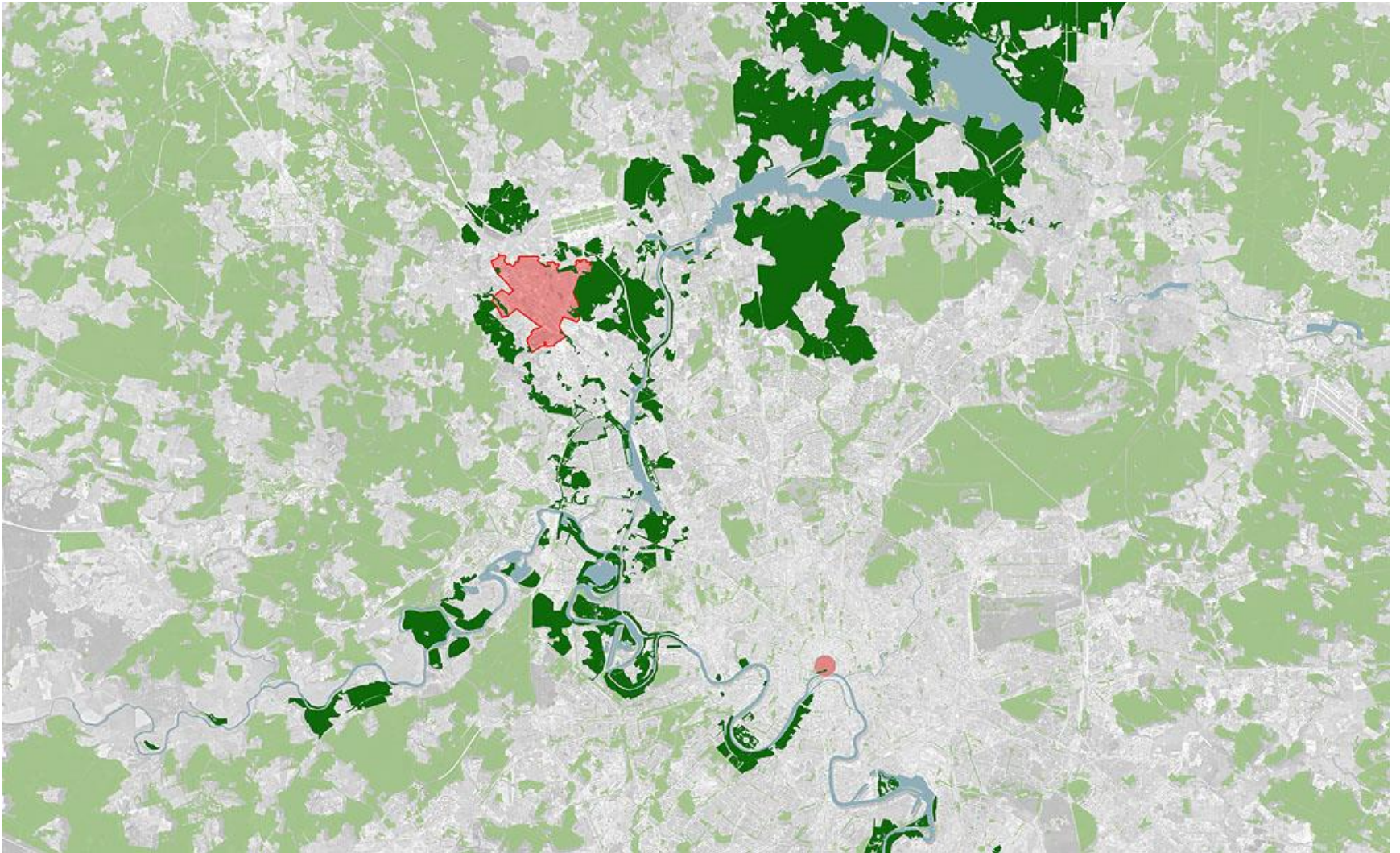


Different starting points

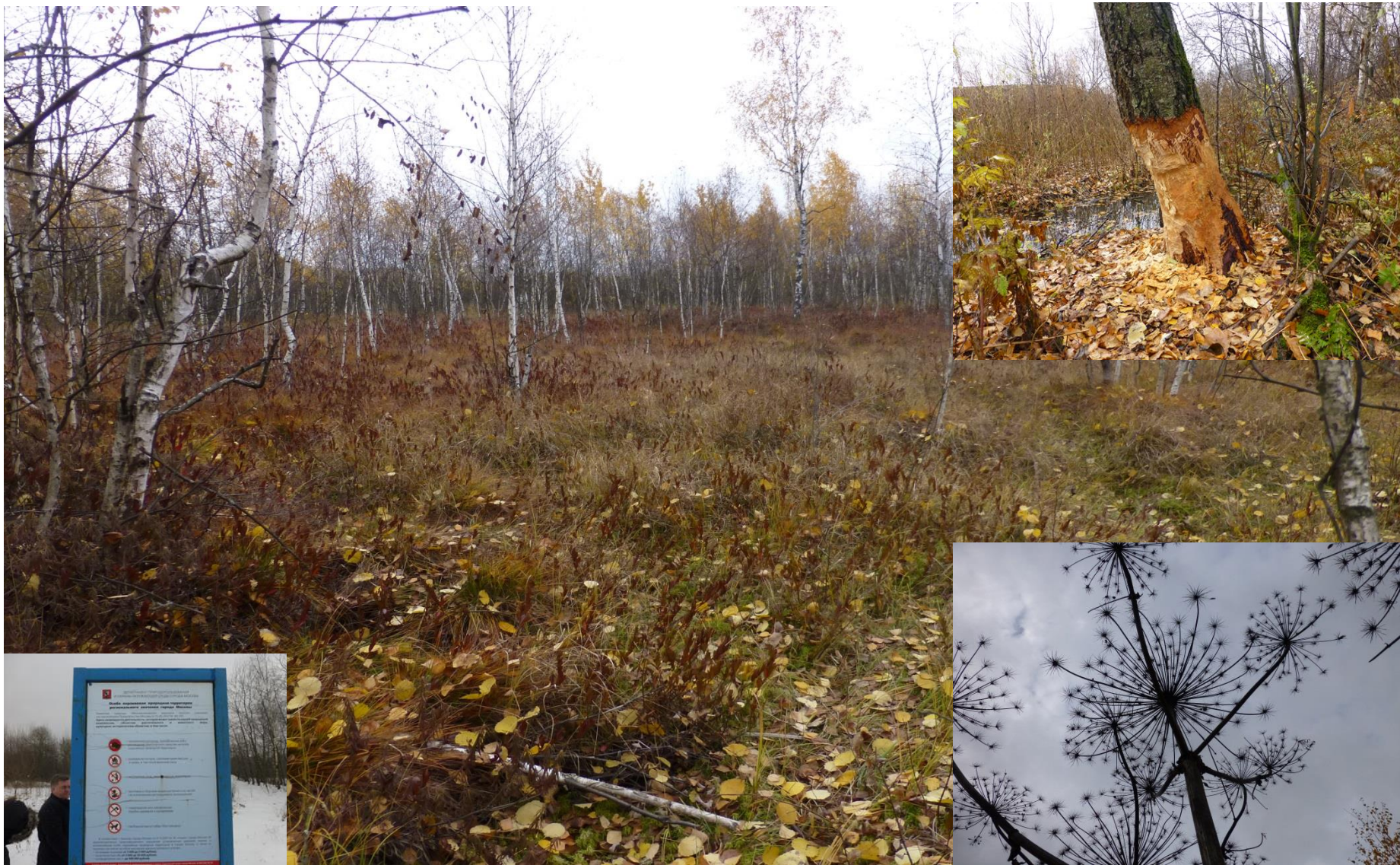
Projects broadly fall into two categories:

1. Designing new green infrastructure as part of a wider development.
2. Enhancing biodiversity within existing green infrastructure often has part of urban regeneration projects or historic parkland restoration.

Molzhaninovo – a wider Green Network



Molzhaninovo: habitats and species



Molzhaninovo - new urban green network



The Olympic Park – clear objectives, commitment and monitoring

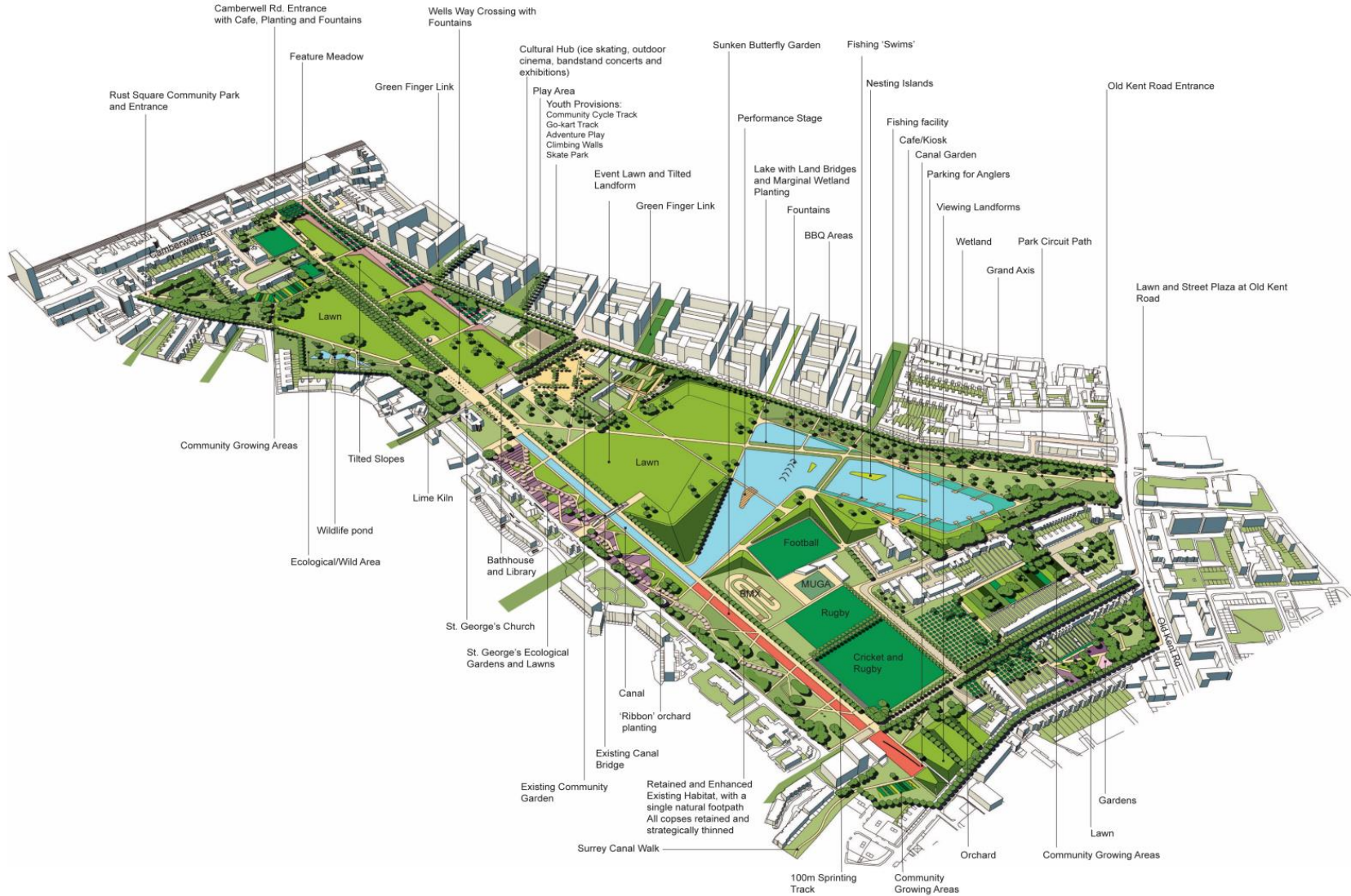
Planning Condition OD.0.11



Olympic Park - Vision a park for people and wildlife (Multifunctional Infrastructure)



Burgess Park



Burgess Park – community use and liaison



Maximising biodiversity



Sefton Park – Fitting in with the main objective

- A Victorian Park laid out in 1872 to the design of the French landscape architect Edouard Andre. This was an HLF funded scheme and the primary aim was restoration to the original design as far as possible.



Sefton Park – local opinion

- Great concern about terrapins and flowering cherries and loss of trees as part of the restoration. Main focus on improving the biodiversity of the water bodies, enhancing acid grassland biodiversity and bats in trees.



Thank you

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