

# A liquid

# challenge



London Borough of Lewisham

THE PLIGHT OF TODAY'S URBAN WATERCOURSES RAISES SOME SERIOUS CONCERNS ABOUT URBAN PLANNING, ACCORDING TO **RICHARD SHIRRES**

Above: A scheme in Chinbrook meadows, Lewisham, completed in 2002, freed the Quaggy river from its concrete corridor to allow it to flow more naturally through the park

Right: A watercourse in Printers Fold, Burnley illustrates the tendency to canalise urban watercourses

NATURAL WATERCOURSES ARE important 'ecotones'. Put simply, they constitute a linear hiatus for biological diversity where, due to the coming together of land, air and water, the flora and fauna are significantly more abundant. In the face of climate change, the linear continuity of healthy watercourses contributes much needed robustness as part of an ecological network that can help conserve biodiversity. Rather perversely, watercourses are not valued in this sense within the latest Government guidance on nature conservation – *Planning Policy Statement 9: Biodiversity and geological conservation*.

Neither do they appear to be valued by other organisations. For example, in September 2004, the Town and Country Planning Association produced a 35-page guidance document – *Biodiversity by Design*. There may be a reference to 'finance stream' but little else. The Government's favoured advisors CABE, also released a ten-point *Manifesto for better public spaces*. Sadly, CABE expressed little enthusiasm for watercourses either, despite water being intrinsic to green spaces.

One would think that local watercourses and the opening up of culverts might be addressed somehow by the sustainable communities' agenda. After all, the more culverts, the more rats, the more flood risk, the more lost natural habitat, the more citizens disengaged from the basics of a natural environment. One estimate suggests that watercourses impinge on 15-30 per

cent of core neighbourhood areas. For a community's quality of life, an open watercourse provides:

- a sense of place and local identity;
- enhanced walking routes;
- an aesthetic dynamic focus;
- flourishing habitat and wildlife corridor; and
- greater biodiversity.

Perhaps the Government could usefully query whether any of its housing renewal pathfinders are giving due weight to these significant points?

"Calling all three-dimensional planners: is there anyone out there?"

## Planning for water

My recent experience has been to examine the situation of 'critical' urban watercourses – 'critical' in the sense of posing some flood risk. Many of these watercourses are not part of recognised flood plains. How urban planning has contributed to this situation, what it tells us about the sustainability of latter-day urban planning and why there is a rising imperative for planning for water, is something worth exploring in the context of 'green places'.

Since the 1980s, the Government has urged local government planners to concentrate on enabling development. More latterly, it has incentivised Local Planning Authorities (LPAs) to attain a

prompt turn around for the majority of planning applications by applying a performance indicator. Satisfying a particular quotient triggers a financial fillip from the Government.

But are there sufficient countervailing drivers to ensure we are not missing out on potential ecologically sustainable development? Planners now possess different priorities from their formidable predecessors (such as Lewis Mumford and Patrick Geddes). The priorities of today seem to interfere with resolving details of the real three-dimensional world, despite the advent of planners' most powerful tool yet – Geographical Information Systems (GIS).

## Straight-jacketed watercourses

A common experience of professional land drainage colleagues is one of urban watercourses made inaccessible – 'straight-jacketed' by buildings, with developers having been allowed to culvert, hide or simply ignore the natural drainage. One recent planning application, sponsored by a county council, submitted several alternative proposals to create a recreational green space above the line of a shallow, culverted watercourse. None of the proposals suggested opening up the culvert, even though a simple diversion to the periphery of the site in open channel would have been possible.

All too often, it seems, the planners' view seems one of being limited to two dimensions – of not appreciating the inextricable link between topography and the innate drainage and, thereby,



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falling short of realising the ecological potential of green spaces.

In the aftermath of the Rio Summit, the 1990s saw some attention to the concepts of sustainable development and biodiversity. With some justification, architects and planners basked in the new light of rationale for their professions as key agents for enabling and realising a sustainable built environment.

While policy moved on apace in the 1990s, UK planning methodologies lagged behind. In particular, the diffusion and exploitation of GIS moved at a rather glacial pace. Only in the last few years are planners showing signs of exploiting the ‘power’ of GIS; the power to envision for ecologically sustainable development, whether for particular application scenarios or, more strategically, for development plans. The GIS work done on urban land classification for the Glasgow and Clyde Valley Joint Structure Plan Committee is a good example of the baseline data needed.

For particular planning applications, GIS can be used to envision the three dimensional, and hence drainage, implications of a development. Yet few, if any, local authorities use GIS to review strategically potential

opportunities for daylighting culverts. The Sustainable Management of Urban Rivers and Floodplains (SMURF) project involving the Environment Agency (EA) – which aims to demonstrate how the principles of urban river basin management planning can be applied to highly modified and degraded catchments – has yielded some important work in this direction.

### Planning ahead

Currently, the EA is in the throws of implementing the EU Water Framework Directive, by means of river basin management planning (RBMP) aimed at improving water quality according to ecological drivers. Latest research extends the range of urban diffuse pollutants potentially affecting water quality. This underscores the need to exploit opportunities for open urban watercourses and buffer zones, and utilise their potential functionality for addressing pollution loadings through ecological processes.

Although not yet statutory, catchment flood management plans (CFMPs) are also in production by the EA. Both, RBMPs and CFMPs will not only demand strategic attention from the LPAs but the LPAs will be the key deliverers. In addition to RBMPs and

CFMPs, there is the evolution of the Government’s ‘Making space for water’ strategy (MSfW) – a cross Government strategy to manage the risks from flooding and coastal erosion. In order for MSfW to deliver integrated drainage planning, local authorities are going to have to raise their game in the planning and management for water. Indeed, this is central to local management of quality of life and the sustainable communities agenda.

In principle, the planning policy guidance on development and flood risk (PPG25, 2001) and its evolving successor, currently in draft, Planning Policy Statement 25 (PPS25) have been, and will be, an important driver for better water planning, especially in terms of flood risk. Under the new PPS25, the LPA will be obliged to act on comments by the EA.

Recently, a senior LPA planner advised me that it is not their practice to consult their own council land drainage colleagues, even on major developments. I have also been told at one meeting of land drainage engineers, from ten different local authorities, that drainage planning was “not on their planning colleagues’ list”.

While the EA takes its role as consultee very seriously, LPAs cannot expect the EA to serve as a proxy extension of their development control and strategic planning teams. Instead, what land drainage capacity exists within the local authority should be involved. A key starting point in planning for water lies with the first exploratory contacts between developer and an informed planner.

For a local authority, engaging in environmental planning and management of its open watercourses means:

- easier management of flood risk;
- easier management of urban diffuse pollution;
- a physical focus to raise community stewardship; and
- a rationale for ‘green space’.

The sooner developers and planners within LPAs embrace a more ecological approach to green space provision and exploit GIS potential, the sooner we can all start to move towards more sustainable communities. Calling all three-dimensional planners: is there anyone out there? Please! ■

### Bibliography

- Draft PPS25: *Development and flood risk*, ODPM, 2005
- PPS9: *Nature conservation*, ODPM, 2005
- Patel and Drieu, *Pollutant build up and runoff on highways: expanding the current methodology for additional determinands*, *Journal of the Chartered Institution of Water and Environmental Management*, Vol. 19, 3, 2005
- *Ecological frameworks in North West England*, Hodcroft and Alexander, *Town and Country Planning*, p282-284, October 2004
- *Watercourses in the Community*, SEPA, 2000, published in association with Urban Design Alliance, The Institution of Civil Engineers and WWF
- *Caring for the Earth*, IUCN, UNEP and WWF, 1991
- *Biodiversity by design*, Town and Country Planning Association, September 2004  
Visit: [www.tcpa.org.uk](http://www.tcpa.org.uk)
- *Making space for water*, DEFRA  
Visit: [www.defra.gov.uk](http://www.defra.gov.uk)
- CABE Space  
Visit: [www.itsyourspace.org.uk/manifesto.asp](http://www.itsyourspace.org.uk/manifesto.asp)
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