

# National infrastructure assessment call for evidence: Submission from ADEPT 10<sup>th</sup> February 2017

#### Introduction

The Association of Directors of Environment, Economy, Planning and Transport (ADEPT) represents 'Place' Directors from upper tier (county, unitary and metropolitan) authorities. ADEPT members are at the very heart of maximising sustainable growth in communities throughout the UK. We are delivering the projects that are critical to unlocking broader economic success and creating more resilient communities, economies and infrastructure.

ADEPT is a membership based, voluntary organisation with 70 authority, 15 Local Enterprise Partnership (LEP) and 10 corporate partner members across England. We represent members' interests by proactively engaging central Government on emerging policy and issues, and promoting initiatives aimed at influencing Government policy. We represent public sector interests across all our key areas.

## Responses to questions: cross-cutting issues

Q1. What are the highest value infrastructure investments that would support long-term sustainable growth in your city or region?

As a national body ADEPT seeks to support sustainable and high quality growth through appropriate policies and investment. Prioritisation should be given to areas where marginal / modest growth in GVA can have a marked and substantial impact in lifting areas out of poverty. This not only seeks to re-balance the economy but it supports the Government ambition of creating an 'economy that works for everyone'. Many local economies have need for investment to tackle current and forecast increases in highway congestion and rail overcrowding, however schemes that help re-balance the economy should play a bigger role.

ADEPT notes the new Housing Strategy as set out by the Government and we are very supportive of the ambition to deliver a step change in numbers of homes delivered. The need for quality homes in the right location is essential in meeting the basic needs of society. However ADEPT does not feel the current planning system, especially the National Planning Policy Framework (NPPF), will bring about the necessary quality of development i.e. energy efficiency, traffic mitigation measures or help tackle air quality.

Future infrastructure across the public realm must become more resilient to change. This includes the impacts of climate change and ever more intensive winter flooding. Equally, technology is demanding greater flexibility in the use of current and future infrastructure and reflecting the lifespan of major investment it is essential that such 'high value' assets maintain their value and purpose in to the future.

Q2. How should infrastructure most effectively contribute to the UK's international competitiveness? What is the role of international gateways for passengers, freight and data in ensuring this?

Global markets play a significant role in meeting the UK's day to day needs. Equally our ability to trade competitively across national boundaries will become an even greater priority in the coming years. The UK has historically been a trading nation and with it has grown a complex and



comprehensive range of ports and airports interconnected with a range of inland waterways, rail and road connections. The extent to which infrastructure constraints act as a barrier, or additional cost pressure, on global supply chain logistics is perhaps 'lost' within the broadly acceptable figure an annual cost in excess of £21bn per annum and rising. By 2030 this represents a loss to the UK of more than £300bn.

Notwithstanding understandable concerns associated with runway location, it is clear that development and delivery of major infrastructure remains slow and protracted. Such long lead times militate against early gains to GVA and itself represents a bottleneck as major schemes (e.g. HS2, Heathrow, and Hinckley) vie for Ministerial time. However the choice of UK ports and airports, and the role of the Channel Tunnel, represent critical assets that only when nearing capacity does a policy response from Government seem forthcoming (e.g. Bathside Bay). Only at that point do long standing issues associated with freight gauge and capacity i.e. Felixstowe to Nuneaton or air quality at Heathrow become the subject of discussion. ADEPT believes that certain critical enabling infrastructure should be developed as part of a long term strategy.

Q3. How should infrastructure be designed, planned and delivered to create better places to live and work? How should the interaction between infrastructure and housing be incorporated into this?

A rebalanced economy *should*, over the longer term, ensure more homes are built outside London and the South East. This would help measures to reduce the GVA gap and create positive economic multipliers within the economies of the Northern Powerhouse and Midlands Engine. Any new major infrastructure should be focussed around achieving this structural shift.

Local government when properly supported and given appropriate freedoms is then able to support the delivery of critical local and reginal infrastructure. Whilst each major development might not be relevant to the National Infrastructure Commission (NIC), the framework for having this does have relevance. The National Planning Policy Guidance (NPPG) is not achieving the volume of development nor the quality desired. NIC support for reform of the NPPG might usefully support local Government in delivering the ambition for truly sustainable communities.

ADEPT endorses maximising the development potential of brownfield sites – especially where this forms part of the existing built environment. This is crucial in mitigating the needs for car borne trips and supports enhanced bus and rail services and non-motorised trips. Indeed cycling and walking must play an ever greater role in our thinking given the obesity issues affecting the UK. Existing best practice and case studies exist but owing to NPPG and the desire to increase the volume of housing ADEPT is unsure that these homes and communities will be in the right place and create a sustainable and positive legacy for decades to come.

Q4. What is the maximum potential for demand management, recognising behavioural constraints and rebound effects?

ADEPT has undertaken considerable research on demand management and we are ideally placed to share this with the NIC in more detailed discussions.

In our experience it is the reduction of peak demand that has the greatest immediate opportunity to reduce peak loading – be this on roads, trains, energy or water supplies. Smoothing of demand through market segmentation and crucially informed customers making appropriate choices (with incentives) has a significant and immediate role to play. Certain industrial users of electricity have



'Peak Load Pricing' whilst the National Grid continues to incentivise 'demand side response' programmes including reduced activity at times of critical energy demand from elsewhere in the system.

Train operators already operate advanced fare systems to price people into the off peak periods. However we feel this is more likely about yield management and managing contractual payments associated with their franchise than genuine attempts to bring about demand management across the entirety of their capacity during the off peak.

It is highly likely that people can be encouraged to change habits and this could be informed by the roll out of smart meters and connected devices (e.g. freezers that turn on at specified off peak slots and development of 'Economy 7' type products). It is notable that the roll out of LED's and low energy bulbs domestically, allied with LED TV screens are starting to reduce domestic demand. However home insulation has had a piecemeal and stop start interventions; highly relevant (and neglected) given the role this simple investment in reducing the overall baseload.

On demand management for transport, ADEPT notes recent discussion regarding TfL and the London Mayor's regarding potential road pricing instead of congestion charging. At present road space is managed through congestion which simply adds to pollution and energy demands (from whatever source of propulsion). With the rise of connected vehicles it can only be a matter time as to when a mileage and time based approach to manging demand for road space is implemented. An informed motorist can then make choices in light of full information on the direct and externalised cost of their travel. This could readily be priced at a point where it was fiscally neutral to the motorist and exchequer but would make more transparent choice of modes or times of day.

Q5. How should the maintenance and repair of existing assets be most effectively balanced with the construction of new assets?

ADEPT recognises the significant backlog in road maintenance and deficiencies in renewal of bus fleets and train rolling stock (Britain having its highest ever average age). In a mixed funding envelope it is understandable that there are calls to prioritise renewal of life expired carriageway, failing bridges, streetlights and structures. Equally many existing rail corridors are life expired or at capacity. Business parks and residential roads are often not on the classified road network and create an unattractive place to work or live.

However, new infrastructure is essential in order to bring about an economic shift at the heart of 'rebalancing the economy'. In some locations it is essential that new rail lines (i.e. HS2 and HS3) and certain road connections provide distinct and discrete incremental capacity to bring about wider ambition and change. Major new inter urban road capacity however is recognised as having been tried (i.e. M25) and shown to consistently fill up with generated trips and increased mobility.

Renewal of gas and water infrastructure installed 100- 150 years ago is resulting in many councils experiencing significant issues of 3<sup>rd</sup> party works impacting their networks, albeit there is recognition this investment is critical. Long term investment in roads maintenance has occurred in a few areas associated with PFI projects. That model is not necessarily one that would benefit all areas, but it is clear that even when funding exists over a 5-10 year period new or different thinking is required to provide immediate investment leveraged against future funding beyond a narrow local council time scale. A 10 year leveraged approach with front loaded funded would provide greater immediate impact and would be efficient within the new approach to Asset Management Planning.



Q6. What opportunities are there to improve the role of competition or collaboration in different areas of the supply of infrastructure services?

Across the UK there are already a number of examples of local councils operating at a regional or shared service approach. This includes the Greater Manchester waste disposal arrangements or the substantial Energy from Waste projects (i.e. South Wales). It is notable that there is over 400 district or borough councils but only 153 highway authorities.

Collaboration in procurement of goods and services is occurring but many councils are not participating; through either inertia or resistance to change. This is evidenced by the lower than expected take up of the DfT 'HMEP' programme (Highways Efficiency Maintenance Programme). It is clear that a political geography rarely mirrors the appropriate scale to provide major maintenance as with the piecemeal renewal the £££ billions of street lighting asset, or conversely winter maintenance that is not joined up across boundaries. This raises issues as to whether the public sector is able to approach the market at the scale and quantum that provides the best outcome.

Q7. What changes in funding policy could improve the efficiency with which infrastructure services are delivered?

It is recognised that having funding certainty through multi-year settlements – as operated by DfT - is beneficial. This can facilitate investment in maintenance and wider transport enhancements.

ADEPT has undertaken research that shows that access to capital investment is not the issue but rather the repayment mechanism. Local councils have considerable experience and operate diverse mechanisms i.e. the UK's first Local Authority PFI - the Essex A130 which operates shadow tolls.

As already mentioned, pricing also sends a signal on the direct cost of consuming a service and differential pricing occurs in consumption of energy but not for transport. A fiscally neutral method that does not penalise the average motorist would provide a significant signal that direct cost – plus externalities such as air quality impacts – varies according to when people choose to travel.

These price signals are crucial to making most efficient use of precious assets. Equally given the advent of new services such as 'Uber' and developments including autonomous vehicles, there could be a marked shift in what and where infrastructure is required and who might pay for this.

Q8. Are there circumstances where projects that can be funded will not be financed? What government interventions might improve financing without distorting well-functioning markets?

Local government is already accessing substantial funds through prudential borrowing. ADEPT notes the government decision to close the public works loan board, but with alternative loan arrangements being put in place, that appears to represent no major issue to accessing capital. Councils have become very skilful at 'invest to save' initiatives with major investment secured on the back of savings achieved over the life of projects.

Local councils are however increasingly reporting a reducing amount of revenue funding which can and will affect the ability to 'seed corn' investment in capital projects. Moreover the long run revenue implications of step change in infrastructure will increasingly affect the viability of otherwise sound investments. There needs to be far greater freedoms and flexibilities as to how



local public bodies make investment choices. This requires more funding to be delegated to the local level by Whitehall, plus an acceptance of the need to relax revenue versus capital issues.

In many local economies there is not a well-functioning mechanism to secure necessary investment. Councils have a long and successful record of land remediation and working with commercial partners. However the long lead time and scale of historic issues (i.e. contamination in former coking works) requires consideration of more specialist funding arrangements if ambitions associated with brownfield development can be swiftly achieved.

Q9. How can we most effectively ensure that our infrastructure system is resilient to the risks arising from increasing interdependence across sectors?

A rebalanced economy will spread the benefits of what is currently, largely London and the South East, centric growth. This presents major risks in terms of unbalance in labour markets, materials and potential 'boom and bust' and resultant historic impacts that affect wider programming across major projects and the efficiencies that can flow from these.

ADEPT continues to work with councils and government departments on improving resilience, including the severe flooding that has hit many regions of the UK over recent winters. The interconnected nature of supplies and communications systems (including broadband and 3G) continues to be tested in ways that, not until recently, had been found to be lacking.

ADEPT has previously submitted (May 2014) evidence to the DfT resilience review. Following the major flooding of Storms Desmond and Eva, the Government commissioned the National Critical Resilience Review. ADEPT remains seriously concerned that sufficient understanding is still not being given to 'weak points' in national and international communication / infrastructure systems associated with natural or potential deliberate acts.

Q10. What changes could be made to the planning system and infrastructure governance arrangements to ensure infrastructure is delivered as efficiently as possible and on time?

ADEPT believes that local government can provide a suitable democratic basis on which to develop and deliver sustainable growth. The credentials of local councils in balancing sustainability and speed of growth are essential to ensure that new communities provide a positive long term legacy. The Local Plan and Local Transport Plan approach is well established and broadly effective; although there are areas where a more strategic approach to spatial planning would be beneficial.

The concept of 'efficiency' must consider the long run impacts of locational choice, especially where sites are being delivered in areas known to be at higher risk of flooding. Equally it is hardly efficient to continue to build homes that create a higher demand for energy and water than envisaged in the previous Level 5 & 6 of the Code for Sustainable Homes and ambition for Zero Carbon homes.

At present the NPPF presents councils with a threat that if they reject development then Developers nullify all conditions on Appeal. This creates a significant concern in the planning process and when developers do succeed at appeal, it means development is proceeding without essential infrastructure.



Q11. How should infrastructure most effectively contribute to protecting and enhancing the natural environment?

The land use planning system recognises the degree of 'harm' in changing land use. ADEPT members have for many years sought to balance the need to protect local environments with development pressures.

New approaches and interventions can bring about offsetting impacts that restore balance over a large area. Indeed ADEPT has examples of how water quality can be improved through innovation and engagement with water companies, to bring about a positive system-wide change and 'raising the bar' for future development.

Equally we note that from a low point of less than 5%, UK tree cover and forest now exceed 11% and continues to be enhanced. Trees have a critical role in providing attractive places to live but equally through Defra funded programmes they are now again contributing to positively to flood management in upper catchment areas. It is of concern that good practice associated with sustainable drainage systems (including porous parking surfaces), and the related aspects of creating space for wildlife at the heart of developments, has been weakened by not having a statutory basis.

ADEPT believes that enhancing the natural environment is about maintaining and enhancing green spaces to benefit wildlife diversity, offer public (physical and mental) health opportunities, improve air and water quality, tackle surface water flooding and ensure greater resilience to future climate change. We do not support growth at any cost; protecting and enhancing natural capital is essential to making local places attractive places to live and work. The role of Local Nature Partnerships (LNPs) needs to be reinvigorated with proper funding. LNPs should have a seat around the LEP table to ensure the benefits of natural capital towards sustainable growth are properly considered. The environment is not a block to growth but is a way of providing great places to live and work. We need to move away from this outdated view and ensure that the environment is built into our growth decisions.

Q12. What improvements could be made to current cost-benefit analysis techniques that are credible, tractable and transparent?

ADEPT is aware that contemporary evidence gathering by the House of Commons Transport Select Committee has generated considerable input from the Chartered Institute of Highways and Transportation (CIHT) and other national bodies such as the local government technical advisory group (TAG).

It is recognised that the cumulative impact of relatively modest journey time savings might overplay the need for road improvements. Conversely rail forecasting is consistently failing to predict the real latent demand for travel such as experience by unprecedented growth on the Borders rail reopening in Scotland.

We are also highly mindful that future developments might increasingly be out with traditional models presenting a major risk associated with substantial infrastructure change beyond that committed. We note the extensive work currently underway by Transport for the North on such issues within their Trans-Pennine road considerations and we would guide the NIC to that work.



## **Transport**

Q13. How will travel patterns change between now and 2050? What will be the impact of the adoption of new technologies?

As referred to above, the ability to predict the impact of fast changing technologies undermines traditional modelling and prediction. It is essential that our systems can be made to accommodate change through more flexible approaches.

It is highly likely that developments will create opportunity in the heart of town centres but equally this change may result in loss of some types of activity. Just as 'out of town' development from the mid-1980s brought significant change, large distribution hubs and 'Amazon' deliveries are creating a new scale to logistics.

The fact that driverless cars might increasingly impact on marginal bus services might represent a significant reduction in access to education, jobs and health care. Conversely such technology might instead create a blended approach of core routes and much wider and more attractive 'feeder / distributor' approaches to public transport. Equally driverless deliveries, especially overnight logistics, might make best use of available capacity and help reduce peak time activity.

ADEPT is mindful that there is considerable material already being produced on this matter. The degree and extent to which these will feature across the public realm is the subject of debate; indeed reaching a consensus might be better achieved through dialogue with ADEPT (and others) as to what we should actively plan for and what we might additionally safeguard for.

Q14. What are the highest value transport investments to allow people and freight to get into, out of and around major urban areas?

The Eddington Review over a decade ago identified the value of targeted and relatively modest investments. The DfT has in recent years continued to support occasional tranches of 'pinch point' projects. Equally the development of park and ride systems in specific locations can bring about major change, even in very traditional car based communities (e.g. Essex County Council, Chelmsford).

ADEPT note the protracted issues associated with modest enhancement to existing rail station projects and new stations on the approach to major conurbations (i.e. Elland Station in West Yorkshire). Equally the long term planning process for light rail mitigates against their development and delivery as they are out with Parliamentary and planning cycles.

Given ever tighter budget pressures in local Government, the age of traffic signals has resulted in many key junctions and arteries at the heart of town centres now being served by systems that are approaching two decades old. They are analogue / clock face systems in a world that is increasingly 'Bluetooth' '3G, 4G, 5G'. Such systems are actually creating congestion, delay and increases to air pollution as they have not been synchronised in many years and fail to be ready for a connected world. A major investment in proven systems would create immediate improvement and would accommodate forecast traffic levels but crucially would allow greater differentiation of higher value trips – be these buses or certain freight that could be platooned through or into towns.



Q15. What are the highest value transport investments that can be used to connect people and places, as well as transport goods, outside of a single urban area?

There is a need to better understand the nature and function of trips in order to better support different policy choices. Travel between rural centres, or adjacent urban areas, are distinct from inter-urban travel. It is recognised that increased accessibility and choice will broaden the demand for travel to access certain services and does create choice and opportunity.

However additional trips are rarely without impact and the full externalities of additional trips, especially in the peak periods, create a cost on other users and, through pollution, wider society. Such inter-urban trips should be encouraged onto public transport modes and the creation of park and ride as well as freight hubs should be more extensively developed as a priority to create choice where currently choice is limited.

Q16. What opportunities does 'mobility as a service' create for road user charging? How would this affect road usage?

As set out in Question 13 there is a considerable debate on future transport opportunities. It is recognised that some scenarios include fewer vehicles that are more extensively used over the course of the day. This contrasts with current car use that is perhaps only 5-10 hours a week. The fiscal impact to the Exchequer could be significant but equally there could be impact on the lower demand for town centre parking. A scenario exists where cars are instead owned by a number of fleet providers that arrive when required. It would be those fleet providers who would then have a financial (tax) relationship nationally and it is likely that a local charge or toll would then be more acceptable.

It is also worth noting that consumers would then be using such vehicles in a manner that would remove their desire / interest in the fuel source, power, marque etc. Instead they would be more interested in assurances around the guarantee of a specified 'slot' into a given destination and the user experience within the vehicle.

At a policy level, with known times and destinations it is possible that MaaS could seek to defer or bring forward certain trips as capacity consideration are calculated by the mobility operator. This could markedly reduce the highest morning and evening peak demand and smooth demand through careful programming into the shoulders and off peak periods. It is conceivable certain trips might be actively converged with car-pooling or perhaps para transit / mini-van arrangements. Public bodies could actively influence this so long as a pricing tool exists.

## **Digital communications**

Q17. What are the highest value infrastructure investments to secure digital connectivity across the country (taking into consideration the inherent uncertainty in predicting long-term technology trends)? When would decisions need to be made?

Mobile connectivity is a modern necessity – both for the public and also public and private services - and should be treated as such with availability of service the norm. At the current time, because infrastructure investment has been too little and too slow (mainly, but by no means exclusively, in rural counties), there exist too many 'not-spots' and very intermittent coverage. Clearly this is not conducive to today's ways of doing business via multi-function smartphones. Good 4G coverage



must be secured now, via legislation if necessary, using the concept of the Broadband Universal Service Obligation based on a measure of the service consumers actually receive wherever they need it. The UK must become well placed to take advantage of 5G capacity when it becomes available but cannot wait until this begins to replace 4G in the 2020s. Good digital capacity is needed to complement transport demand measures. As more people and organisations apply flexible working access to digital connectivity becomes a vital component economic growth.

There has been significant change in the market, with a number of mergers between operators. This has resulted in some deterioration of service locally where mergers have led to rationalisation of infrastructure (e.g. decommissioning of masts). In addition, central government manage the license process for 3/4/5G, and operators bid in. Local authorities have little / no influence over any improvements or investments being made into areas to improve the situation.

Q18.Is the existing digital communications regime going to deliver what is needed, when it is needed, in the areas that require it, if digital connectivity is becoming a utility? If not, how can we facilitate this?

Many existing initiatives, including the Government's Superfast Broadband project and to a certain extent the now defunct Mobile Infrastructure Project, have gone a long way to delivering what is needed. However, due to large housing numbers coming forward over coming this will not be enough as locations continue to grow homes and businesses. The Government must establish deployment of digital infrastructure – both fixed and mobile – as a priority in national policy and work with local planning authorities to encourage prioritisation in local planning policy.

In Gloucestershire County Council the roll-out of broadband provision has aimed to deliver speeds of 30mbps in line with EU targets. This will ensure that the area does not fall below EU targets, but we are aware that other areas may be aiming e.g. for 24mbps minimum.

#### **Energy**

Q19. What is the highest value solution for decarbonising heat, for both commercial and domestic consumers? When would decisions need to be made?

The highest value solution would be a combination of district heating networks (urban and commercial) and individual electric heat (rural) alongside thermal storage. These will need to be combined with efficiency measures. The main issue is not having a clear national energy pathway, which is creating a lack of confidence in the market development of the necessary networks, technology and investments. A transition away from gas will also be a significant challenge, and again will require clear policy that encourages certainty and investment. Decisions need to be made immediately in order to achieve any 2050 targets. Key to success will be public engagement and leadership through a clear policy framework.

Q20. What does the most effective zero carbon power sector look like in 2050? How would this be achieved?

The third UK Carbon Budget, which runs from 2018-2022, is a 35% reduction from the 1990 base year by 2020. The 35% target was achieved in 2014 and national carbon emissions continue to show a downward trend. In 2015, 17% of the UK's electricity generation came from renewable sources.



An effective zero carbon power sector should be flexible and on-demand. It will have at its heart, energy efficiency technologies such as co-generation, and would be using predominantly low carbon and renewable energy technologies to generate electricity.

This would be achieved by putting in place a well-resourced phased strategy. This would include adequately funded research and development to enable new technologies to be developed. It would also include a supported route to market particularly for technologies that are already being used in other countries.

Q21. What are the implications of low carbon vehicles for energy production, transmission, distribution, storage and new infrastructure requirements?

Although the electric vehicle (EV) market has more than doubled in the last three years, the uptake of EVs and the demand for charge points was initially lower than expected. However, it is expected that as the price of EVs drop, its uptake will continue to increase.

This could lead to an increased variance in the demand of electricity, as at any point in time a number of EVs could be charging and therefore increase the load. Both the DfT and the Royal Academy of Engineering estimated that if the UK switched to EVs, electricity demand could rise by 16%. However, if as intended, most EVs are charged at home during the night then the demand will be predominantly at night time and easier to manage in relation to destination site charging. DfT and the Royal Academy also noted that this could present an opportunity for utility companies to take advantage of this increased demand by offering incentives such as lower cost electricity for off-peak use and EV owners feeding unused energy back into the grid at peak times.

Energy storage will need to provide a balancing effect for additional charging loads coupled with smart tariff arrangement to reduce energy peak loads. Phasing of overnight charging loads using smart grid technology would be essential in removing night time charging peaks and balancing demand.

Ideally new housing and commercial construction projects should include charging points as the cost of the charge point is relatively small during construction and the inclusion of an on and off street EV charging strategy should feature in development plans. This would remove any negative perception of charging point availability for potential EV buyers and increase the rate of change to EV vehicle adoption.

# Water and wastewater (drainage and sewerage)

Q22. What are most effective interventions to ensure the difference between supply and demand for water is addressed, particularly in those parts of the country where the difference will become most acute?

Demand management relies in large part on behavioural change, and is clearly challenging to achieve. The most effective intervention in this context is metering.

New resources are affected by (land use) planning and various consenting requirements which lead to long lead-in times. It would be for the water companies to address this matter through effective long-term planning within their Business Plans.



Intercompany transfers are not without their financial and environmental costs. However, it may be that this is the preferred element of a suite of measures to manage the demand supply balance.

Planning for water resources needs to be considered more thoroughly as part of the development process. Currently there are various documents that all try to achieve the same outcome i.e. Water Cycle Studies / Strategies, Business Plans, Abstraction Plans etc. There is a need for one holistic plan including multi-agency / partner requirements and aspirations. The absence of a strategic framework and the prevalence of 'jigsaw' planning have led to greater difficulties for infrastructure providers of all types to keep in step with growth. The re-introduction of formalised strategic planning to allow a planned approach to growth across the country would be an effective intervention. We are firmly of the view that current strategic planning arrangements, primarily through the requirement to comply with the Duty to Co-operate, are not an effective way of addressing the strategic demand and supply of infrastructure, which includes water resources. The complexities of the planning system in relation to infrastructure planning i.e. Community Infrastructure Levy / Section 106 also need addressing.

Q23. What are the most effective interventions to ensure that drainage and sewerage capacity is sufficient to meet future demand?

The revised emphasis on strategic planning is necessary to ensure that foul sewerage provision is in step with development needs. It should be made mandatory that every strategic plan is accompanied by a sound evidence base when planning for drainage and sewerage capacity. This could easily be achieved through the requirement of a document such as a Water Cycle Study, which are often completed in partnership and set out new infrastructure requirements or upgrades needed to protect existing development.

The current inadequacies of drainage systems are of concern. The question suggests that the only problem is with meeting future development pressures, and that current systems are up to the job.

Historical under-investment means systems are 'just about managing' in many centres of population and are often easily tipped into crisis. The management of systems is often reactive, not preemptive. There is a legacy of changes in roles and responsibilities over time whereby assets haven't been transferred or identified in specific maintenance regimes. This had led to huge numbers of flood and drainage related assets being un-owned and maintained – leading to increased flood risk and costly legal challenges.

Ofwat sets the criteria against which the water companies are judged. The current regime allows the public realm to be flooded by surface and foul water as water companies are not judged on their performance in this area. A review of the Regulator's priorities with regard to flooding, and by implication the adequacy of sewerage capacity, is necessary.

Schedule 3 of the Flood and Water Management Act introduced Sustainable Drainage Approval Bodies (SAB). This role would be performed by the upper tier local authorities, also known as the Lead Local Flood Authorities (LLFAs). These would have effectively regulated and maintained



drainage (non-foul) as part of new development. However, the government considered this to be a brake on growth and did not commence this aspect of the Act.

In its place the government designated LLFAs as statutory consultees to the (land use) planning system. However, their advice is not binding and developments can, and are, being approved despite concerns / objections being raised by the LLFAs. Furthermore, the adoption and subsequent maintenance of new drainage infrastructure is not effectively addressed under this new arrangement. This leaves a potential legacy of widespread surface water problems for future generations.

The introduction of a body regulating drainage designs at a local level (i.e. the SAB) would ensure the effective implementation of robust and appropriate drainage systems which would be maintained for the lifetime of the development.

Q24. How can we most effectively manage our water supply, wastewater and flood risk management systems using a whole catchment approach?

Taking a whole catchment approach is not new; it is a long standing concept which is easy to understand but less easy to implement.

It is important to reconcile the competing priorities of the very many and different agencies, authorities and private sector organisations who are essential to the delivery of a whole catchment approach. However, there is no single legal mechanism available for an organisation to achieve this. Instead, reliance is placed upon pro-active partnership working and issues can arise around self-interest.

However, we do not think new primary legislation is appropriate as it may place too much power in one agency and it would have profound implications for allied legislation. It may be that existing legislation and regulatory priorities are re-oriented towards a whole catchment approach. This could be achieved through strengthening the catchment based flood risk management plan (FRMP) process.

The maintenance of existing systems should not be forgotten. Whilst accommodating growth is important, it is essential that the infrastructure we already have is fit for purpose, attributed to an owner, and effectively inspected and maintained.

# Flood risk management

Q25. What level of flood resilience should the UK aim to achieve, balancing costs, development pressure and the long-term risks posed by climate change?

The summer floods of 2007 cost the UK economy £3.5bn; and the recently published climate change risk assessment identities that the risk of flooding will increase. The public health costs are often underestimated; in addition the mental health impacts on affected communities of flooding can last many years. There is no simple answer to the question but it must be an aspiration to ensure flood resilience and adaptation.



Q26. What are the merits and limitations of natural flood management schemes and innovative technologies and practices in reducing flood risk?

We should be managing risk at the strategic level, and utilising property level resilience as a means of last resort. This strategic risk management, much like the catchment approach, relies upon a variety of interested parties coordinating their actions to minimise risk. There are a vast number of merits including environment, biodiversity, water quality, aesthetic and health improvements linked to natural flood management. There is a vast amount of available evidence to suggest the effectiveness of natural interventions and this work should be promoted and hard defences challenged more often through existing regimes such at the Regional Flood and Coastal Committees. The limitations result from the inability of the current assessment and funding regimes to adequately assess these types of schemes against the traditional approach. There is an urgent need for the current flood & coastal erosion risk management (FCERM) process to improve the costbenefit arrangements for not only surface water projects, but also natural flood management schemes.

#### Solid waste

Q27. Are financial and regulatory incentives correctly aligned to provide sufficient long-term treatment capacity, to finance innovation, to meet landfill and recycling objectives and to assign responsibility for waste?

The joining together of waste collection and disposal functions in areas where currently there is separation will generate efficiencies and provide opportunities to increase recycling rates. We should be aiming to move away from landfill; whilst and investment in energy recovery facilities could contribute to localised district heating schemes. PFI type schemes have been successful in securing new facilities which are cleaner and provide the capacity to dispose of our waste.

Q28. What are the barriers to achieving a more circular economy? What would the costs and benefits (private and social) be?

We should ensure a stronger regulatory framework which places greater responsibility on the producer to incorporate reuse/recycling or end disposal costs within their manufacturing and pricing structure.

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