

CPSA Press release

Concrete pipe industry launches six point action plan

New Chairman of the Concrete Pipeline Systems Association, Andy Goring, today announced a six point call to action to tackle the major problems facing the sewerage and drainage infrastructure of Britain following a summer of floods and pollution incidents. He was speaking at an event in London held to mark his two year chairmanship of the Association

The CPSA is calling for the following measures:

- 1. The national storm and sewerage distribution network to be thoroughly surveyed and a national infrastructure investment programme undertaken ; an initial sample survey should be carried out to look at the relative performance of different pipeline materials**
- 2. Sewerage system capacity to be increased by a minimum of 50% on all new schemes to allow for housing growth.**
- 3. Local Authorities, Highways Agency and other asset owners to re-focus attention on gully emptying and the clearing and improvement of run-off bottlenecks**
- 4. Durability of new pipeline systems to be set at a minimum of 100 years**
- 5. Combined sewers carrying storm water and sanitary sewage to be separated as far as possible with combined sewer overflows minimised as far as possible and eliminated completely in coastal and other highly sensitive areas**
- 6. Capacity of all new and refurbished storm drainage systems in the UK to be at least doubled from now to allow for the higher intensity of rainfall and the need to remove run-off water much more quickly and efficiently.**

Andy Goring commented "The major incidents of flooding during 2007 coupled with the dreadful pollution incidents from overflowing sewage are a wake-up call to the infrastructure community. Together we must alert the public and the politicians that a better drainage and sewerage network is vital to support public health standards, housing and commercial growth as well as to deal with the higher, more concentrated rates of rainfall and runoff that we will experience from

now. Ownership of the problem may be diffuse but the Government has a clear role to bring all stakeholders together to solve it.”

“Although last year the problem was drought, it is clear that in this era of climate change there will be extremes at both ends of the spectrum. Whilst the problems of hosepipe bans and empty reservoirs from last year may be easily forgotten, we should act to see that the under spending on flood defence and drainage infrastructure does not go the same way. We hope our six point plan will help to set the agenda.”

Notes to Editors on the CPSA

The Concrete Pipeline Systems Association represents manufacturers accounting for 95% of the UK output of concrete pipes, manholes and gullies. BRE is on record as describing CPSA members products as the “finest quality concrete we have ever seen”. Full details and latest news can be found at www.concretepipes.co.uk

Notes to Editors on the CPSA six point plan:

Point 1: No-one knows the state of Britains sewerage and drainage infrastructure Useful background is contained in the Guardian article “The dirty bomb beneath our feet, thousands of miles of ageing sewers” at www.guardian.co.uk/uk_news/story/0,3604,1047574,00.html and reproduced below [with acknowledgment to The Guardian.]

Point 2: With a new and higher housebuilding programme announced by the Government last month it is vital that primary underground infrastructure is funded with the extra capacity to quickly take in the resulting effluent and surface water run-off, linking in of course with SUDS schemes wherever possible.

Point 3: There was much anecdotal evidence arising from the recent floods in Yorkshire and Humberside and South West Midlands to suggest that routine gully maintenance has been declining as has the clearing of blocked road surface water run-off areas. We suggest that the Local Government Association should survey this area to see how much of a problem has accumulated.

Point 4: The concrete pipeline industry is proud of the durability of its products. The CPSA would welcome a minimum 100 year life for all materials coupled with provision for regular camera inspection and provision for any necessary maintenance.

Point 5: The fouling of agricultural land, recreational areas and gardens with sewage effluent is a reminder that surface water and sewage should flow down separate systems wherever possible. The massive volumes of sewage that have overflowed into the Thames in storms over the last 10 years have made a big

impact on the public. We believe the mood to spend the necessary capital is now there. We need a positive lead by OFWAT in the 2009 price review with supportive political leadership. The spread of diseases such as typhoid and cholera could be an increasing risk as Britain's summers heat up and it is vital that we keep our high standards of sanitation and remove risk at source. An excellent briefing note is provided by the CIWEM at www.ciwem.org/policy/policies/overflows.asp

Point 6: A doubling of capacity for a concrete pipe is equivalent to a 40% increase in pipe diameter. We accept that extra treatment plant will also be necessary especially where higher levels of pollutants from storm water run-off might get into watercourses. For particular areas at risk it will be sensible to take up overseas practice in hotter countries and build open or closed drains that can take peak storm flows when necessary but otherwise are dry.

The dirty bomb beneath our feet, thousands of miles of ageing sewers

Tuesday September 23, 2003

[The Guardian](#)

Kirsty Scott looks at the hidden dangers of a system that is close to breaking point

Deep beneath the clock tower in Leicester city centre, Martin Webster shines his torch on the stream of human waste coursing through the Victorian sewer. Faeces slip past in a muddy, ceaseless flow, as a methane monitor checks the warm, foul air and emits a steady, reassuring shriek.

The walls of the tunnel, crafted by the 19th-century engineer Joseph Gordon, are man-sized, solid, built to last.

"If they were all like this, it would be easy," said Mr Webster, a sewer worker with Severn Trent Water. "But it is not all like this. What we do down here, it is firefighting."

A few months ago, elsewhere in the city, a sewer ruptured, sending a 20-metre (70ft) geyser of filth into the air. Weeks later, in Lincoln, the residents of Shakespeare Street were cleaning up after the fourth sewage spill in a year. And in the nearby community of Metheringham, villagers watch for rats and rain after years of problems with their sewers.

That's just one corner of the country. A Guardian investigation has uncovered evidence that the sewerage system across Britain is under intolerable strain and in many areas is on the brink of collapse after decades of chronic neglect and

underinvestment. There are more than 186,000 miles of public sewers but only 241 miles of them were replaced or upgraded last year.

Industry sources have told the Guardian that they do not even know where all the sewers are, let alone in what condition they are. In most areas, only 20% of sewers are inspected as a matter of course. The rest are checked only if something goes wrong. It is not unknown for retired engineers to be called at home in emergencies and asked where the pipes run. And then there are the private sewers; a separate network which may stretch to 125,000 miles, 15% of which are thought to be in danger of collapse.

Little is known of the health impacts of such an ageing system, but it is estimated that up to 40% of Britain's burgeoning rat infestations are linked to poorly maintained sewers; borehole surveys have found traces of microbiological pollution from sewage in the earth and groundwater up to 40 metres below our cities.

"We are sitting on a timebomb in terms of the decaying infrastructure beneath our feet," said Steve Bloomfield, senior national officer with the public sector union Unison. "I don't want to scaremonger, but there are clear risks; the risk of sewer collapse and pollution.

"If you talk to managers in the industry today, they are in the business of risk management. More than anything it is a way of managing that risk in a way that does not cause any major incident. It is a worry, and as time goes on it will only increase."

John Banyard, director of asset management for Severn Trent, one of Britain's biggest water firms, said: "All the privatised utilities are beginning to realise that this is the big issue; that the infrastructure put in 70 to 80 years ago is going to have to be replaced."

At the regulator Ofwat's prompting, the industry splits its sewers into two types; critical and non-critical. The critical ones, which account for 15% to 20% of the network and would cause major disruption if they failed, are examined over a 10-year rolling programme.

"All the other sewers we wait until they collapse before we do anything," Mr Banyard said. "There is no proactive maintenance before they collapse. I don't think you can say that is the appropriate approach for the 21st century."

The issue is about to be thrust into the spotlight with the water industry's latest periodic review, which will set water and sewerage rates for 2005 to 2010.

The 10 firms who have managed the water and sewerage system in England and Wales for profit since privatisation in 1989, have asked Ofwat to allow them to

spend £8.5bn on their infrastructure, a figure which will help to push the average water bill of £240 up by £75 over five years, a 31% increase. The companies insist the rise is needed in part to redress a historic neglect of sewers. Past investment has been largely driven by EU directives, which focus on sewage treatment and outfall, not on the pipes that carry it to our rivers and shores.

But consumer groups remain suspicious, accusing the industry of restricting investment over the years to keep shareholders happy. Last year alone, company dividends increased by 64%. Complaints about sewers, meanwhile, have doubled since 1999, and are now the fastest growing expression of discontent among water customers.

Some industry analysts say nothing less than a return to Victorian levels of public service expenditure will do.

The Victorians created the basis of the sewerage system with a lattice of oversized pipes, built in the main centres of population to counter outbreaks of cholera and other disease.

The system was taken on by local authorities, then passed to regional water authorities in the 1970s. Construction became haphazard, investment was patchy and records of networks diminished with each handover.

The situation is said to be worse in Scotland, where sewerage remains in public hands and has seen far less investment, and for private sewers, an issue the government is studying. Up to half of all homes in England and Wales may be connected to private sewers, which were left off the public network after legislative changes in the 1930s, but many householders are unaware of their responsibilities. They are thought to be in an even worse state than the public network, responsible for up to 280,000 sewer floodings a year, 50 times more than reported public sewer floodings.

Graham Setterfield of the Institution of Civil Engineers said sewers have been the poor relation of Britain's utilities for too long. "Pre-privatisation, investment in sewers was probably the lowest of any of the utilities," he said. "Post-privatisation the investment has gone up, but it has remained the least invested-in aspect of the utilities. We need to spend more. We need to continue to know more."

Ofwat says it does not advise on maintenance of the network, but confirms that it bases its data on critical sewers alone. Its latest report classed the sewer network as generally "stable".

The consumer group WaterVoice also counters claims that the sewerage infrastructure is in a critical state, despite the fact that complaints about sewerage services rose by 17% last year and the number of reported internal sewer flooding incidents in the public system increased from 5,000 to 5,300.

"We don't agree with the idea that we have got a Railtrack situation, with time-expired networks," said WaterVoice spokesman, Andrew Marsh. "Water customers have invested £50bn in the industry since privatisation. We do question the need to spend that much more in the next price review."

Research on the possible health impacts of leaking sewage pipes is scant, but one study by scientists at the University of Sheffield confirmed that microbiological pollution was leaching from sewage pipes into the earth. The team sank 10 boreholes in a 1km square area of Nottingham and found sewage traces in seven. Another survey found sewage traces 30 to 40 metres below the water table.

"You have to ask what this is doing to the environment generally," said Dave Watson, Unison's Scottish organiser for utilities. "You see sewage overflows, sewage leaks, but some of it you don't even notice because it is going into the ground. What is the impact of that?"

They have seen everything in the sewers of Severn Trent. A dead horse, family pets, old duvets. But it is fat that Mr Webster and his colleagues dread most. Poured down sinks from restaurants and kitchens, it congeals in corners where debris sticks to it until it becomes capable of blocking a pipe.

Last year the firm had between 500 and 600 sewer ruptures or rising main bursts. Phil Gelder, sewer flooding manager, said the company understood the impact on customers. "It is so distressing," he said. "We have one lady who has been flooded with sewage and she asked us, 'Have you ever had a turd squashing up through your toes?' You really can't imagine it."

Brian Webb can. The 69-year-old resident of Metheringham had his garden flooded three times with raw sewage before a valve was fitted to his manhole.

"In the late 1950s the sewage system was upgraded when there were 1,500 people living here," he said. "Nothing has been done to the diameter of the pipes and there are now 3,500 people in the village. It is all trying to go down the same pipe. It does not work. "

His neighbour, Heather Routledge says Metheringham is so overrun by rats that it is known as "rat city" among local pest controllers.

Anglian Water, whose sewerage infrastructure was recently classed as "deteriorating" by Ofwat, insists Metheringham has not been flooded with sewage since it put in new valves two years ago. And it denies that the rats plaguing the village have anything to do with the sewers. "In rural areas, you will have them," said an Anglian spokesman, Andrew Mackintosh.

But Don Calthorpe rejects Anglian's claims that it has done all it can. The 86-year-old former water engineer helped to design the area's sewerage system.

"I used to work 20 years ahead," he said. "In the last 10 years, Anglian have done nothing. The water companies' interests are in keeping the shareholders happy. When they do repairs, they just patch things up.

"It is disgraceful. Sooner or later, somewhere, there is going to be a breakdown in public health."

Barrie Clarke of Water UK, the industry's representative organisation, insists the company's appreciate customers' fears, and are concerned themselves about the repercussions of leaving the sewers as they are for too much longer. "There is an environmental risk to letting this maintenance wait and wait," he said. "You can't put it off indefinitely."

Facts about filth: the price of a safe network

The network There are 186,000 miles of public sewers and between 50,000 and 125,000 miles of private sewers in England and Wales. Scotland has 24,000 miles of public sewers. Last year, 241 miles of public sewers were replaced or upgraded in England and Wales; three miles were replaced in Scotland

The problems The environment agency says 16.4% (5,175) of all pollution incidents last year in England and Wales were caused by sewage, compared with 14.1% the previous year. The water companies were fined almost £1m last year for pollution incidents, most of which were caused by sewage. Top of the list was United Utilities Plc with a £327,500 fine for 29 incidents

The customers Studies suggest only 6% of people think the water and sewerage infrastructure badly needs investment; only 12% would pay £5 more a year to improve the system

The costs

1p estimated cost of flushing the toilet

£240 average water bill in England and Wales

£1.7bn invested in sewerage maintenance last year

£50bn paid by public since water and sewerage privatisation in 1989

Floods Spark Drains Upgrade Plea

Tuesday 21st August 2007

[BBC News Website - http://news.bbc.co.uk/1/hi/england/kent/6957068.stm](http://news.bbc.co.uk/1/hi/england/kent/6957068.stm)

More government money is needed to upgrade Kent's "outdated drainage system" after heavy rain left residents and businesses counting the cost.

The county council said the investment was needed to make the 50-year-old system fit for the 21st Century and able to cope with high volumes of rain.

Fire crews in east Kent received more than 70 calls overnight, with Hythe, Folkestone and Whitstable worst hit.

Councillor Keith Ferrin warned worse could follow without proper drainage.

The cabinet member for environment, highways and waste said highway services had done all it could to keep roads open and clear debris in the flooded area.

"No drainage system in the country could have coped with the volume of water which hit east Kent," Mr Ferrin said.

"We are hampered by having such an outdated drainage system."

Mr Ferrin said with the prospect of lots more new homes in Kent, proper drainage was essential.

"It's causing havoc today and there will be worse to follow unless something is done now."

The county council said homes were flooded for the second time in a month in parts of Capel, near Folkestone, despite the local drains having been completely jet-blasted and cleaned out by Kent Highway Services.

Engineers are now carrying out tests using cameras to find the cause.

Pilot studies

The Department for Environment, Food and Rural Affairs said responsibility for maintaining drains was shared between several bodies including water companies, local authorities and highway authorities, as well as private landowners.

"We are, however, seeking views from all key stakeholders on how the Environment Agency could have a strategic overview of all forms of inland flooding," a statement said.

"To inform this work, a series of pilot studies have been set up to look at how we can better streamline management of surface water flooding in urban areas."

The government stressed its commitment to dealing with problems, after announcing flood defence funding would rise to £800m by 2010/11.