

## Summary: Intervention & Options

<b>Department /Agency:</b> DEFRA	<b>Title:</b> Impact Assessment of transfer of private sewers and lateral drains to statutory water and sewerage companies	
<b>Stage:</b> Final	<b>Version:</b> for peer review	<b>Date:</b> 5/11/2008
<b>Related Publications:</b> Final RIA - Announcement February 2007, Further IA – Consultation July 2007		

### Available to view or download at:

<http://www.>

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### What is the problem under consideration? Why is government intervention necessary?

Intervention has already been announced by the Government, to transfer existing private sewers and lateral drains connected to the public sewerage network, into the ownership of the statutory Water and Sewerage Companies. This is to address a range of problems associated with the current ownership arrangements, which cause difficulties for owners (householders in the main) and a lack of integrated management of the wider sewerage system. Current market failures prevent a comprehensive solution to the problems occurring solely through individual action and market forces.

### What are the policy objectives and the intended effects?

Transfer of ownership has been announced by the Government as the strategic solution to the problems posed. The objective was refined to determine the implementation option that provides the best balance between clarity, least administrative burden and cost and benefits. The intended effects are to remove householder burden and integrate management of the wider sewerage network to achieve better economic and environmental stewardship of the sewerage system to adapt to the challenge of climate change.

### What policy options have been considered? Please justify any preferred option.

The announcement was based on a preferred option of transfer happening automatically 'overnight' from a set date. Other implementation options that might mitigate costs were subsequently consulted on, e.g. phasing transfer or owners applying for it. Responses strongly rejected these other options. Over and above these options, the preferred option will deliver: a more comprehensive solution to the current problems, clarity on roles and responsibilities for the maintenance of the sewerage network, better integrated management of the network and the least added administrative burden.

**When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?** The benefits of this policy appear in the longer term. We propose to review the success of the policy after ten years or two Ofwat price reviews.

### **Ministerial Sign-off** For final proposal/implementation stage Impact Assessments:

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible Minister:



Date: 29/11/08

## Summary: Analysis & Evidence

<b>Policy Option:</b>	<b>Description:</b>
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<b>COSTS</b>	<b>ANNUAL COSTS</b>	Description and scale of <b>key monetised costs</b> by 'main affected groups' The key costs are upfront capex and annual costs to be borne by WASCs, with capex in particular being highly uncertain. Ofwat estimates that indicative costs may equate to an average £10 p.a. increase on all sewerage bills, with a range of £4-£12 across WAS companies. Liabilities - and costs - are transferred from private owners.			
	<b>One-off</b> (Transition)		<b>Yrs</b>		
	£ 129m		10		
	<b>Average Annual Cost</b> (excluding one-off)				
	£ 133m	<b>Total Cost (PV)</b>		£ 4,398	
Other <b>key non-monetised costs</b> by 'main affected groups' (Potential loss of business for micro drainage repair firms. Landlords who have granted easements for private sewers will lose right to have those sewers moved at no expense to themselves.)					

<b>BENEFITS</b>	<b>ANNUAL BENEFITS</b>	Description and scale of <b>key monetised benefits</b> by 'main affected groups' Estimated £137m p.a. repair cost avoided for current private sewer owners (rising over time). Around 80% of homes have private sewers or laterals. Local authorities will avoid c.£13m (rising over time) for sorting out disputes. Householders will save £9m of time (rising over time) due to a reduction in blockages after transfer.			
	<b>One-off</b>		<b>Yrs</b>		
	£ n/a				
	<b>Average Annual Benefit</b> (excluding one-off)				
	£ 187m	<b>Total Benefit (PV)</b>		£ 4,448m	
Other <b>key non-monetised benefits</b> by 'main affected groups' Social benefits to all from WASCs' greater efficiency and long term strategic operation of assets, from fewer blockages, less consequent pollution, fewer health hazards, & higher health & safety standards in pumping stations. Removal of liability, distress & sense of unfairness from private sewer & lateral owners.					

**Key Assumptions/Sensitivities/Risks** Wide range around indicative figures to be assumed. Length of sewers & laterals to transfer fairly certain. Ofwat advises no. of pumping stations, condition and remedial expenditure for pipework & pumping stations is very uncertain, as assets have not been surveyed. Peak capital expenditure may occur later than assumed.

Price Base Year 2008	Time Period Years 60	<b>Net Benefit Range (NPV)</b> £ n/a	<b>NET BENEFIT (NPV Best estimate)</b> £ >49m
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What is the geographic coverage of the policy/option?	England & Wales			
On what date will the policy be implemented?	April 2011			
Which organisation(s) will enforce the policy?	Defra			
What is the total annual cost of enforcement for these organisations?	£ nil			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ not known			
What is the value of changes in greenhouse gas emissions?	£ n/a			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro not known	Small not known	Medium n/a	Large n/a
Are any of these organisations exempt?	No	No	N/A	N/A

<b>Impact on Admin Burdens Baseline</b> (2005 Prices)		(Increase - Decrease)	
Increase of £	Decrease of £	<b>Net Impact</b>	£ n/a

Annual costs and benefits: Constant Prices (Net) Present Value

## Evidence Base (for summary sheets)

[Use this space (with a recommended maximum of 30 pages) to set out the evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Ensure that the information is organised in such a way as to explain clearly the summary information on the preceding pages of this form.]

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### Scope of Impact Assessment

1. This Impact Assessment (IA) updates earlier IAs (see paragraphs 2 and 3) and analyses one final proposed implementation option. It has been developed using the policy cycle toolkit from the BERR website.
2. The Government<sup>1</sup> announced in February 2007 that existing private sewers and lateral drains (laterals) connected to the public sewerage network should be transferred into the ownership of the ten statutory, privatised and regulated Water and Sewerage Companies (WaSCs). The announcement covered England and Wales and was based on an assessment of transfer happening automatically 'overnight' from a set date. A Regulatory Impact Assessment (RIA) providing the evidence base behind the decision can be viewed at: <http://www.defra.gov.uk/environment/water/industry/sewers/existing/pdf/sewers-drains-ria.pdf>.
3. The Government undertook to consult on other possible ways to implement the transfer, and to prevent the proliferation of new private sewers, before making the transfer a statutory duty for WaSCs. That consultation ended in October 2007 and its IA which looked at the costs and benefits of four possible implementation options can be viewed at: <http://www.defra.gov.uk/environment/water/industry/sewers/pdf/impactassessment-2007consultation.pdf>

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<sup>1</sup> Unless otherwise stated all references to the Government in this paper mean Central Government in England and the Welsh Assembly Government.

## **What problems are being addressed?**

4. Difficulties for private sewer and lateral owners and a lack of integrated management of the sewerage system as a whole. Private sewers and laterals are explained in the background information at annex A.
5. Sewerage failures can be unpleasant and polluting; all sewers and drains have a finite design life and numerous problems occur each year across England (and Wales). Current arrangements often lead to problems on the private system including: a lack of awareness among owners about their responsibilities, establishing shared ownership and responsibility for maintenance, unwillingness of owners or occupiers to accept their responsibility and contribute towards the cost of repairs to shared sewers, the cost of, and organising repairs – sewers and lateral drains can lie under the public highway for example, difficulties in getting private sewers adopted by WaSCs and sewage flooding & pollution.
6. There are approximately 323,000km of public sewers in England and Wales which are the responsibility of WaSCs. Approximately 184,000km of private sewers and 36,000km of private laterals connect to and affect the public system, but are not the responsibility of WaSCs and have no planned operational regime<sup>2</sup>. The consultants Atkins estimated that 39 per cent of the properties paying sewerage charges are served by private sewers<sup>3</sup>. We estimate that at around 80% of properties have at least a lateral connection to the public network. Private sewers may, and lateral drains will, run outside the boundaries of the properties they serve. UKWIR and Ofwat have previously estimated that over 13,500km of lateral drains lie under public highways in England and Wales<sup>4</sup>, and in extremes, they are recorded to lie under railway lines.
7. Private sewers are thought to be in a worse condition with a higher blockage rate than public sewers. UK Water Industry Research (UKWIR) and Ofwat estimate that there are around 428,000km of private sewers, lateral drains and (non-transferring) drains in England and Wales. Information gathered by Defra and based on data from drain service companies, estimates that there are 2.2 million blockages per year on the entire private network at an estimated annual rate of 5.1 blockages per km. A previous Ofwat estimate indicated a rate of blockages of 2.8 per km on the public sewers referred to as “Section 24” (of the Public Health Act 1936) sewers, which are generally small diameter sewers, comparable to private sewer pipes.<sup>5</sup> (Length is not the only, or even main driver of the number of incidents, but we have no adequate alternative data on quality or state of repair.) Sample CCTV surveys of the internal condition grade of private sewers, focusing on problem locations, revealed twice the incidence of pipes classified as “Collapse likely in foreseeable future”, as is typically found in the public sewer network<sup>6</sup>.
8. Currently, drainage repair companies responding to private owner call-outs probably undertake more repeated rodding and jetting at sites of recurring blockages than is desirable for effective management, and they tend to focus piecemeal patch repairs to private sewers on the immediate problem location. Repairs and other interventions upon repeat call outs are not always carried out by the same independent drainage contractor, which impedes the accumulation of knowledge about the past repair history and problems on the wider local network. Drainage repair contractors can typically provide less long term problem-solving, involving detailed asset examination and diagnosis, and asset upgrading

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<sup>2</sup> Lengths obtained from Ofwat, 2008

<sup>3</sup> Atkins undertook the original evidence base for Defra’s review

<sup>4</sup> There are also lengths of private sewer under highways due to failed adoption agreements, for example, although these cannot be quantified.

<sup>5</sup> Dealing With Sewer Blockages, WRc, Ref: PT 1082/02775-0, December 1995

<sup>6</sup> “Review of Existing Private Sewers and Drains in England and Wales Consultation Paper” for Defra and Welsh Assembly Govt, July 2003

or replacement, than is expected from WaSCs, post-transfer. WaSCs have appropriate Codes of Practice for maintaining systems, for example, setting maximum jetting pressures proportionate to the pipe material and structural integrity, and equivalent codes and information are probably not applied by all independent drainage contractors.

9. There is no framework to help deal with the main problems that ownership of private sewers and laterals may bring, but, conversely ownership responsibilities can be enforced on owners. WaSCs currently do not have to assume responsibility for private sewers or laterals and have no incentive to do so.

### **Why is Government intervention needed?**

10. Current market failures prevent a comprehensive solution solely through individual action and market forces.

#### **Market failures**

11. **Ill-defined property rights:** most home owners are unaware of their legal liabilities for private sewers and laterals (there is no comprehensive reliable record of where these assets lie or who is served by them, and it is not evident when buying a property). The Home Information Pack (HIP) provides purchasers with better information than they used to get but is not explicit on the issue and does not help existing private sewer owners. (In cases where a private sewer is identified through a HIP, owners may perceive that it will be more difficult to sell their property.) Even a surveying exercise to map the assets, costed at around £1bn, would not resolve the problems of shared assets and externalities.
12. **Under-maintenance of “merit good” by private owners :** private sewers deteriorate and perform worse than equivalent public sewers. Well maintained sewers have public health and environmental externalities and benefits: society would probably choose that sewers be maintained to a higher level than private owners achieve. Private owners are typically short-term utility-maximisers who react - if at all - to immediate failures, and take into account only private benefits and costs. Private sewers and laterals do not benefit from the strategic approach to data collection and investment in their maintenance or repair, that applies in the public system. Blockages are more likely to recur and less likely to be completely resolved than when networks are managed by WaSCs. Even if HIPs provide better information, and if general guidance were issued on responsibilities for private sewer owners, there is still no mechanism or incentive for private sewer owners to manage the network strategically for the long term, to the standard that society would choose.
11. **Externalities among joint owners:** a sewer’s run may, for example, serve 6 properties. Owner five may cause a blockage that only affects owners one, two, three and four upstream of the blockage. Owners five and six, downstream of the blockage may be unwilling to contribute to the cost of repair and owner five may be unwilling to allow entry onto his property to effect the necessary repairs. The shared responsibility may be hard to enforce and free-riders may persist, even with better information provision.

#### **Government and other failures**

12. **Private sewer owners are cross subsidising others.** Charges for sewerage services must be paid as part of the water and sewerage bill by everyone whose property connects to the public sewerage system (the average annual sewerage bill is about £160). When a problem occurs for customers served entirely by the public network, the relevant WaSC carries out appropriate remedial work. But customers served by a private sewer up to the point it connects with a public sewer pay the same annual

charge, effectively cross-subsidising non-private sewer costs, and also bear the responsibility and risk of meeting extra (possibly significant and unexpected) costs to maintain the 'private' section of the overall sewerage facility their property receives.

13. **Private sewer failures can affect public sewers (externality):** incurring costs and inconvenience for WaSCs and their customers.

#### Other issues for private sewer owners

14. Private sewer owners may simply not be able to afford the costs of repairs or maintenance to private sewers and drains. Emergency blockage clearance (estimated from industry sources) may cost in the region of £100 – £280<sup>7</sup> and is often urgent and unexpected. Rehabilitation costs can be greater. One residents' association letter in December 2004 highlighted costs of £10,000 for repairs to a stretch of private sewer, and the associated difficulty in getting contributions from 57 owning properties to recover the costs.
15. Few private sewer owners have the technical capability or experience to effectively deal with the problem or procure cost-effective remedial work. This problem is exacerbated by laterals that lie under public land or highways because work may involve digging up the road.
16. While some private sewer owners may be able to claim for the cost of repairs to their assets on an insurance policy, insurers usually only provide cover for accidental damage: wear and tear and other coverage gaps exist (see annex A).
17. Private sewer owners can apply to their WaSC to have their sewer adopted. However, adoption is at the WaSC's discretion and the owner will most likely have to first rectify deficiencies at their own expense. Where private sewers have been constructed from sub-standard materials, or lie on a gradient too shallow for effective drainage, re-laying may be required, and the costs involved in such a process can be prohibitively high.
18. Currently, private sewers are not monitored for flooding because they are not the responsibility of WaSCs (at any rate their location is often unknown) and private sewer owners are not eligible for GSS payments<sup>8</sup> where flooding has occurred on their private sewer or lateral drain.
19. Many participants in a customer survey carried out as part of this review (see annex A) who believed they were served by the **public system** also viewed current arrangements as unfair. Without intervention someone currently entirely on the public system may move and find themselves served by a private sewer.

#### Will the current situation be resolved over time?

20. Private sewers and drains are finite assets; as they come to the end of their life the need for repair may increase, in turn increasing the risk to public health and the environment as problems of establishing ownership and sharing responsibilities continue to cause delay to the resolution of structural problems. As private sewers deteriorate over time and more problems occur, it is likely that complaints about the current arrangements will increase. In this IA, figures are based on the assumption of a rise in the rate of

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<sup>7</sup> Price range is based on standard emergency drain clearance. Industry prices vary according to factors such as date, time and location of callout.

<sup>8</sup> The Government sets guaranteed standards of service that water and sewerage customers are entitled to receive from their WaSC. The guaranteed standards scheme (GSS) sets out the standards and the levels of GSS payment companies can make and is monitored by Ofwat. WaSCs make GSS payments when their level of service drops below certain standards for services ranging from making and keeping appointments to dealing with sewer flooding.

blockages on private sewers of 0.5% per year, which may be conservative. (See annex A.)

21. In particular, problems on private sewers constructed from pitch-fibre pipes – used extensively in the 1960s for small-bore pipes – are likely to increase in the short-term (20 – 30 years) due to their design life of around 50 years. However, in the longer-term, with the replacement of pitch-fibre pipes with superior materials as required, these problems will eventually be eradicated. Atkins' research discovered that up to 50,000 properties per year suffer problems relating to pitch-fibre pipes. A rough, top-end estimate (based on data from the Pitch Fibre Pipe Association) suggests that there are currently 78,000km of pitch-fibre pipes.<sup>9</sup>
22. Climate change is likely to increase burdens on the wider sewerage network, a large part of which does not benefit from any planned operational regime (see annex A for more information).

### **What policy options have been considered?**

23. Transfer of ownership to WaSCs was announced by the Government in 2007 as the strategic solution to the problems discussed earlier in this IA, based on an assessment of option 1 below. The Government undertook to consult on other ways to transfer before making the transfer a statutory duty for WaSCs. Therefore four implementation options were subsequently analysed in an IA and consulted upon in 2007 (see paragraph 3):

1. Automatic overnight transfer from a set date
2. Automatic transfer but phased in some way
3. Transfer without conditions, on application by owner(s)
4. Transfer on application by owner(s) but with conditions

24. Consultation responses strongly supported option 1 (with extremely limited support for any other option – one to two per cent of respondents, see annex B). This final IA proposes the option of automatic overnight transfer, which should deliver the following benefits, over and above the other options:

- A comprehensive and more straightforward solution to the problems;
- Clarity on roles and responsibilities for the maintenance of the sewerage network; and
- The least added administrative burden on WaSCs and other businesses.

### **The final option proposed**

25. The form of the final proposed option, automatic overnight transfer, has been refined following the last consultation (see paragraph 3) and details of this are given in annex C.

26. The final option includes the separate recommendation to have new sewers (that will connect to the public system) built to a mandatory design and construction standard and automatically adopted by WaSCs. This will have two major outcomes:

- The current regime for ownership and responsibility for sewerage will be greatly simplified. Property owners will only be responsible for pipework that lies within their land and serves only their own property. All property owners paying a sewerage bill can expect a level playing field in respect of their liabilities.

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<sup>9</sup> Figures based on production stats (tons per annum) for 1952-1974. Not all of the pipes manufactured will be used on sewer infrastructure; e.g. pitch-fibre was also used for electricity ducting under highways.

- The wider sewerage network will benefit from a long term integrated management strategy that prioritises action and investment according to risk, which should provide much greater efficiency of effort, environmental stewardship, and expenditure, at a time when the network faces increasing demands. Following transfer, a WaSC will be able to collect data across locality (using contracted independent contractors) and will be able to build up an informed picture of what is failing, where and when, and will plan when rehabilitation rather than patch repair is the best economic option.

### Sectors and groups affected

27. The groups affected by the proposed option include: Private sewer owners (e.g. households, businesses, local authorities, housing associations, and other property owners such as government, NGOs, and institutions); WaSCs, who are currently responsible for public sewers; WaSCs' customers; insurance companies; drain repair businesses; Regulators e.g. Ofwat, Environment Agency; Consumer bodies e.g. CCWater; and Government.

### Preventing the proliferation of new private sewers and laterals

28. Whether or not the existing stock of private sewers and laterals are transferred, it is proposed that no new private stock should be constructed that connect to the public network. Action was taken by the Government in 2002 to prevent new private sewers being created by default: a voluntary protocol for the construction of new sewers was published, so that all new sewers might be built to a standard that would not preclude their discretionary adoption by WaSCs. However an assessment about three years after the voluntary protocol's introduction found that less than 1% of developments built after its publication were designed and constructed in line with it. The assessment can be viewed at: <http://www.defra.gov.uk/environment/water/industry/sewers/new/index.htm>

29. The July 2007 consultation tested support for a minimum construction standard to accompany this, and how best to make it mandatory. Eighty-eight per cent of respondents supported a minimum construction standard (1% opposed it) and work is underway to establish what it should comprise. Respondents in favour said that it would prevent pollution, address flood risk management, mitigate the impact of climate change, and avoid an increase in costs borne by WaSC customers (arising from WaSC expenditure to remedy adopted assets of sub-standard construction).

30. The introduction of a mandatory minimum standard, and adoption by WaSCs of new sewers and laterals, is proposed as part of the baseline, whether or not the transfer of existing private assets is implemented. This means that in all cases, no new private sewers or laterals that connect to the public network will be constructed in future.

### Assessment of Baseline: No transfer, mandatory build standard and adoption by WaSCs of new sewers

#### Baseline Costs

31. Currently private sewer owners and local authorities are estimated to spend roughly £149m per year resolving blockages and disputes, some of which is claimed via insurance. Private owners also spend considerable time dealing with blockages. The current state of the private assets presents health and safety risks, and an unquantified number of pollution incidents (e.g. when a pump failure results in raw sewage entering a water course, or when a drain or sewer backs up into a home). Blockages may also impact the public sewer network, disrupting non-private sewer owners. (To the extent that these costs are avoided when liabilities are clearly transferred to WaSCs, they are considered further under *Benefits of Transfer Option*, below.)

32. The baseline position in this IA, without a transfer, includes the costs of a new mandatory design and construction standard for all new laterals and sewers connecting to the public network, and WaSC adoption of them. Costs are qualitative until we know what the construction standard will comprise. Our current understanding is set out below:
- The current industry document 'Sewers for Adoption' is likely to provide the basis of the design standard (NB this is a different document to the voluntary protocol in paragraph 28). This document is already in use by those who want WaSCs to adopt their sewers. The cost of constructing to a higher and consistent standard will increase, but only marginally, in the context of all development costs.
  - Work has already been done to establish compliant sewer layouts which are broadly cost-neutral, compared to current practice, in terms of material content and labour costs.
  - Effective policing of design and construction of all new sewerage systems will increase the management costs for the WaSCs and Building Inspectors.
  - Development and implementation (including training and accreditation) will incur staff costs in the short term, but it is expected that these can be offset within 5 years through streamlining of processes and uniformity in design and construction.
33. The July 2007 consultation responses indicated the common expectation that there would be a marginal increase in overall cost due to implementation of a new, uniform standard, but that this would be offset by lower maintenance costs over time, due to improved long-term asset serviceability and maintenance.

#### Baseline Benefits

- No benefits are expected to arise from continuing private management of existing private sewers and laterals, in the absence of a transfer.
34. Under the baseline, benefits will arise from the mandatory standard and adoption of new sewers and laterals.
- Rather than the multiplicity of guidance, a single national standard for new sewers and drains, and simplified adoption procedures, will bring about time and cost savings for:
    - Developers, in submitting plans to WaSCs
    - All who are involved in streamlined adoption procedures
    - Local Authorities, by removing current work on assessing design and inspection of sewers and laterals which are not adopted
    - Sewer construction and maintenance, as specification of compliant materials will ensure durability, longer asset lives, and lower whole-life costs for maintenance (e.g. jetting resistance)
    - Building drainage construction and maintenance, due to standardisation and repeatability of layouts, with examples provided in the guidance
    - New products, developed in response to uniformity of design specification and produced at high volumes, achieving economies of scale.
  - An appropriate inspection regime will enable any necessary remedial works to be completed while the contractor is still on site and at the contractor's cost, not subsequently the WaSC's customer base
  - Purchasers of new homes will not be at risk of owning private sewers.

## **Assessment of Proposed Option: Automatic overnight transfer, mandatory build standard and adoption by WaSCs of new sewers**

### **Summary of Competition Assessment and Small Firms Impact Test** *(full assessments available at annexes F and G)*

35. Competition Assessment - a transfer of private sewer ownership is likely to change the market structure in the independent drain repair industry insofar as the customers for drain repair services will cease to be private sewer owners and will become WaSCs. Possible impacts on competition in the drain repair industry include:

The amount of work available to drain repair companies direct from householders is likely to decrease, as approximately 52 per cent of the private sewerage and drainage that connects to the public system transfers to WaSCs. But it is highly likely that WaSCs will need to contract out to the drain repair industry some of their extra work on transferred assets;

- Competition for contract work from WaSCs could increase, which could improve take-up of accredited training and work schemes and which could in turn drive up standards
- Some smaller businesses may be less able to compete for WASC contracts and may cease trading or merge with other businesses;
- No reduction in the level of employment within the market is anticipated in the short to medium term, though as noted earlier, over time, in total, we estimate that there will be upwards of 500,000 fewer blockages and call outs as the network quality improves.

36. Small Firms Impact Test – we expect that the amount of work in maintaining and repairing currently private drainage will remain roughly constant in the short to medium term, although it will decline in the longer term, and there will inevitably be a change in the market focus for private drainage contractors, who may wish to enter into arrangements with WaSCs or their sub-contractors. Drainage within property boundaries will remain the responsibility of householders, and repair and maintenance work associated with that will continue to exist. We acknowledge that when new arrangements are better known more householders may call their WaSC in the first instance.

### **Background to costs**

37. Best available cost estimates and data relating to WaSCs have been provided by the independent economic regulator, Ofwat, in September 2008<sup>10</sup>. The figures build on previous private sewers' cost work undertaken by Atkins and WRc/UKWIR (see Technical Annexes to IAs mentioned in paragraphs 3 and 4).

38. Since previous IAs on private sewers, WRc and UKWIR work has resulted in significant changes to the lengths of private sewer and lateral drain for different types of property and, consequently, to the overall lengths of transferable pipework in each company area. Final best estimates for the assets in England & Wales are tabulated in annex A, table 4.

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<sup>10</sup> In this IA, Ofwat's analysis of Infrastructure Renewal Expenditure, planned and reactive maintenance, GSS payment data, actual expenditure figures, and sewer lengths are drawn from the annual June Returns supplied by the regulated water and sewerage companies for 2006-07 and 2007-08. Data from WRc's 2003 report for UKWIR ref. 03/RG/07/2 has been used to calculate the costs of upgrading and maintaining sewers and pumping stations.

39. Uncertainty over the extent and, particularly, the condition of private sewers means that WaSCs cannot provide Ofwat with full and accurate data from which to calculate levels of funding in future price determinations. To obtain greater accuracy, an extensive survey and mapping exercise would be required. UKWIR initially estimated that this might cost £450m, and the figure has recently been revised to around £1bn. It is not proposed to undertake this mapping, hence Ofwat's current estimates of the financial costs to WaSCs are based on indicative assumptions, and it would be arbitrary to suggest a range around the costs. The actual expenditure associated with the ownership and maintenance of private sewers will be revealed over time as companies respond to faults, and build up pictures of the transferred assets. One company has indicated a range of +/- 50% around its current best estimate.
40. If costs prove to be higher or lower than indicated here, it is likely that benefits (costs avoided) will be higher or lower too: higher costs imply a worse condition, or more extensive network, of the assets transferring, suggesting a higher level of blockages will arise in the absence of transfer, with all the associated repair, time, pollution, health and safety costs.
41. Figures assume that 95% of pipes transfer overnight, with the remainder transferring over years 2 to 6 of the implementation, accompanying the gradual take over of the pumping stations that lie downstream of them. Pumping stations are assumed to pass to WaSCs in steps over 2011-12 to 2015-2016.

#### Major costs of Transfer Option

42. Ofwat and the WaSCs estimate that significant capex is required to upgrade the transferring assets to compensate for years of under-investment. Ofwat has provided figures showing WaSCs undertaking a one off £1,291m (undiscounted) programme of capital expenditure, or capex. Almost all (95%) of this expenditure is projected to arise in the first 5 years after transfer as a legacy of urgent problems are resolved. Averaged over 10 years this gives the undiscounted one off or capex cost of £129m. The estimates allow for a proportion of pipes to be replaced, and the civil engineering and mechanical and electrical equipment (M&E) at a proportion of pumping stations to be replaced or upgraded. The figure given is after reductions for efficiencies, which are assumed to reach 15%<sup>11</sup>. The capex figure should be taken as indicative, given the limited information available about the quality of the transferring assets. Company estimates vary significantly. Figures in this IA are higher than in previous documents due to increased estimates of unit costs and of km transferring.
43. Ad hoc responses to blockages will increasingly be replaced by planned programmes of maintenance or operating expenditure (called opex) by WaSCs, supported by provision for annual infrastructure renewals expenditure (IRE) on pipes, and "maintenance non-infrastructure" expenditure at pumping stations (MNI). These provisions enable the renewal and replacement of the pipe networks and pumping stations going forward providing society with permanently funded assets, renewed as required forever. WaSCs' recurring, annual expenditure therefore comprises planned maintenance (or opex), IRE, and MNI. WaSCs' spending is more efficient and better planned and co-ordinated than private spending, so the same annual outlay can achieve a higher standard or fewer failures than the annual spending by private owners now.
44. Latest estimates suggest WASC annual average expenditure of £133m per year (undiscounted), averaged over a 60 year period. This includes annual average £76m on

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<sup>11</sup> Efficiencies are calculated for each company within Ofwat's Aquarius 3 model, and combined to find the saving for the industry altogether.

IRE and annual average £10m on MNI (on pumping stations) (both undiscounted, over 60 years). The annual expenditure figures decline over the first 15 years after implementation as efficiency savings build up to 16%, through economies of scale and streamlined operations.

45. The other component of the £133m WaSC annual average cost (undiscounted) is planned and reactive maintenance (or opex) on the pipe network, which is estimated at an annual average of £47m over 60 years. The spend declines in cash terms over the first 15 years after implementation as efficiencies reach 15%. (The opex figures include estimates of GSS payments for internal sewer flooding incidents derived from June Return information for AMP3 years<sup>12</sup>).
46. Ofwat advises that no additional administration and management costs for these new assets need to be considered, as they will be negligible.

*Table 1 - Estimated undiscounted expenditure by WASCs, £m 2008 price base, after efficiencies. (Similar discounted figures are shown in Table 3, below.)*

	5 year totals				First 20 years	Annual average spend		
	2011-12 – 2015-16	2016-17 – 2020-21	2021-22 – 2025-26	2026-27 – 2030-31	2011-12 – 2030-31	Over first 10 years	Over first 20 years	Over 60 years
One off capex upgrades	1,230	61			1,291	129 (As in Summary sheet)	N/A	N/A
Annual IRE* and MNI**	415	452	442	428	1,737	87	87	86
Annual operating costs	249	245	239	234	967	49	48	47
Recurring annual cost = IRE, MNI, plus opex	664	698	681	662	2,704	136	135	133 (As in Summary sheet)

\*IRE = Infrastructure Replacement Expenditure (for underground assets)

\*\*MNI = Maintenance Non-Infrastructure (for over-ground assets)

Source: Ofwat and Defra figures

The table shows that the one off capex arises largely in the first 5 years, and that the annual cash costs rise initially, as pumping stations and associated pipes are transferred over time, then decline as efficiencies build up. This means that the longer the period considered, the lower the annual average of the recurring costs.

#### Other non-monetised costs of Transfer Option

47. Local Authorities may face costs for enforcing or solving problems up to the transfer date, once it is announced, as owners leave problems for WaSCs to fix later. This is expected to be minimal and is therefore not monetised.

<sup>12</sup> Ofwat apportioned internal flooding incidents to those caused by drains within the curtilage, and those caused by private sewers and laterals, according to the lengths of pipework, and assumed that the ratio of eligible incidents to total incidents for private sewers and laterals is as per public sewers.

48. The transfer may require Ofwat involvement in handling appeals against transfer. Ofwat estimates that this may equate to one additional, temporary Full Time Employee. This has not been monetised.
49. The insurance industry has reported that the transfer will have an insignificant impact on business, so no impact has been monetised.
50. As above, members of the drainage repair industry may face a loss of business, as the total number of call outs declines once the asset performance is improved. This may be offset in the short term by the high demand for capex and upgrading work. The most vulnerable are micro firms, as they are least likely to win contracts from WaSCs to work on the transferred assets, though they may sub-contract to contractors. We have been unable to quantify turnover loss, but a comprehensive survey in one WaSC area suggests that up to 60% of small firms' current work arises inside the property curtilage and this market, at least, is unaffected by transfer.
51. Transfer does not impose any regulatory administrative burdens on the independent drainage sector (see the Small Firms Impact Assessment at annex G).
52. Some land owners may have granted an easement over their land for a private sewer to be laid, and they hold the right to require the owners of the properties served by the private sewer to pay for the sewer to be moved. This right will be lost once the private sewer transfers. WaSCs have discretionary powers to charge a land owner for diverting a sewer. We have been unable to find any examples of land owners exercising their right and cannot quantify the cost.
53. It is for Defra to enforce the statutory duty for WaSCs to adopt the transferring assets. To date, Defra has not had to enforce a breach of a sewerage undertaker's statutory duty, and a nil annual cost is assumed in this IA.
54. Costs of the mandatory standard and adoption of new sewers and drains, as discussed above under the base case, also apply here.

#### Distribution effects

55. The transfer shifts a cost burden from those private sewer owners who do face blockages to WASCs, and so to all sewerage bill payers. However, all those who connect to the public sewerage network currently pay sewerage bills, even those who are also liable for their own private sewer or lateral (but note that few laterals are currently the responsibility of WaSCs). Hence, under the baseline, private sewer owners are cross-subsidizing non-private sewer owners. Distributional effects include: increased annual costs for non-private sewer owners, rectifying current cross-subsidises from private sewer owners to others, which is probably unfair; increased annual costs for those private sewer owners who have not spent, and will not spend, money on fixing private sewer failures; and, potentially, decreased annual costs for private sewers owners with problematic private sewers which would require personal, remedial expenditure, in the absence of the transfer. The minority of households not served by a lateral may pay the increase in their sewerage bill but not receive the benefit of having a lateral transferred.

#### Monetised benefits of Transfer Option

56. This is the first IA to attempt to monetise any of the benefits expected to arise from the transfer of private sewers.
57. It is anticipated that, after the transfer, upgrades and better quality maintenance will reduce the incidence of blockages on the transferring assets from an estimated 5.1 per

km per year, to perhaps 2.8 blockages per km per year (see paragraph 7). This means an improvement of over 500,000 fewer blockages per year compared with today, due to better management and more investment. Moreover, since the failure rate on private sewers would be increasing over time, without the transfer, the benefits of better management will also rise over time, post-transfer. In this IA it is assumed that the rate of blockages on private sewers would increase by 0.5% a year without a transfer (which is conservative in light of evidence that the rate of blockages on better-maintained *public* sewers has risen by 0.35% p.a. on average, in the past 15 years).

58. An average of three alternative estimates suggests that private sewer owners and local authorities (LAs) are currently spending £149m a year on ad hoc responses to blockages. This cost will be avoided and so represents a benefit of transferring. (See annex A for more on the underlying estimates). There is uncertainty around the figures and the average is probably a conservative estimate. Without the transfer, this annual expenditure would rise as the private assets deteriorate and block more frequently. The annual average over 60 years is £176m. This figure can be compared with the recurring annual spending by WASCs which is estimated at around £133m.

59. Time saved by private sewer owners, due to a reduction in the number of blockages post-transfer, is quantified as an hour and a half per blockage avoided, valued at the median wage, worth about £9m p.a. initially, based on a reduction of at 500k incidents per year, rising over time.

*Table 2 - Estimated undiscounted benefit of time and cost avoided, £m 2008 price base. (Similar discounted figures are shown in Table 3, below.)*

	5 year totals				First 20 years	Annual average benefit		
	2011-12 – 2015-16	2016-17 – 2020-21	2021-22 – 2025-26	2026-27 – 2030-31	2011-12 – 2030-31	Over first 10 years	Over first 20 years	Over 60 years
<b>Annual repair cost avoided</b>	765	784	804	824	<b>3,178</b>	155	159	176
<b>Annual time saving</b>	46	47	49	51	<b>193</b>	9.3	9.6	11
<b>Annual benefit</b>	811	832	853	875	<b>3,370</b>	164	169	<b>187</b> (As in Summary sheet)

The table shows that the benefits rise gradually over time throughout the period, because it is assumed that the private sewer network would continue to deteriorate and suffer a slightly increasing rate of blockages if it remained in private hands. The value to society of achieving permanently funded assets, through adequate annual provision for renewal and replacement, is not directly reflected in these monetary benefits.

#### Non- monetised benefits of Transfer Option

60. The bulk of the benefits from the transfer may be non-monetised, and will accrue over a long period of time to the advantage of most or all in society.

- The transfer resolves today’s ill-defined property rights and so saves distress and cost. Clarity about ownership, post-transfer, benefits anyone who *may* be a private sewer owner – which is a majority of householders.

- The upgrading and ongoing maintenance will improve the quality and ensure the longevity of the assets in question. Well-maintained sewers have positive public health and environmental externalities or benefits, and sewers may be perceived as a “merit good”. The obligations placed on WASCs, and their ability to develop and fund long term strategic plans, will provide this benefit.
- The rise in standards and reduction in blockages may benefit all who use public sewers (since they can be impacted by private sewer failures), as well as benefiting public health and the environment e.g. fewer pumping station failures causing raw sewage to enter water courses, and fewer health and safety risks at sub-standard pumping stations.
- The gradual move to more planned and less reactive maintenance, and the reduction in blockages, enables less road traffic to and from blockages, and less transport disruption from ad hoc interventions on roads and pavements. This in turn should generate lower emissions than otherwise, although there may be increased emissions in the short term associated with the one off upgrading programme.
- The transfer offers the eventual benefit of long term integrated planning and strategic management of a combined, complete network of sewage pipes and laterals.
- A benefit arises for those homeowners whose private sewers run across others’ land, and who may be obliged (whether or not they know it) to fund the cost of moving the sewers, should the land owners require it. They will lose this obligation.
- Benefits of the mandatory standard and adoption of new sewers and drains, as discussed above under the base case, also apply here.

### Distribution effects

61. The transfer will end the cross subsidisation of non-private sewer owners by private sewer owners. Given the high proportion of home owners who are private sewer and lateral owners (without knowing it), there is a perception (e.g. from customer market research, see paragraph 19) that clarifying and standardising liabilities through this transfer will produce a fairer outcome.

### Present Values of Transfer Option

62. The transfer and WASC expenditure is expected to start in 2011-12. New asset lives typically range from 20-30 years for pump M&E, to 80 years for small bore pipes, to 200 years for replaced or upgraded civil engineering work at pumping stations. A 60 year time horizon has been chosen for PV calculations. Ofwat-derived cost figures are inflated to today’s prices with RPI. All figures are discounted over 60 years, using an initial discount rate of 3.5%, dropping to 3% after 30 years (HM Treasury’s recommended discount rates).

63. The cost to WaSCs over 60 years is £9.3bn undiscounted, of which £1.3bn is the one off capex that arises mainly in the first 5 years. The discounted PV of costs totals £4.4bn in 2008 prices, of which £1.1bn is the PV of the capex. A long time frame is appropriate for the investments being made, it captures all the efficiencies assumed, and allows for the annual costs to influence the figures, despite the front loading of the one off investment.

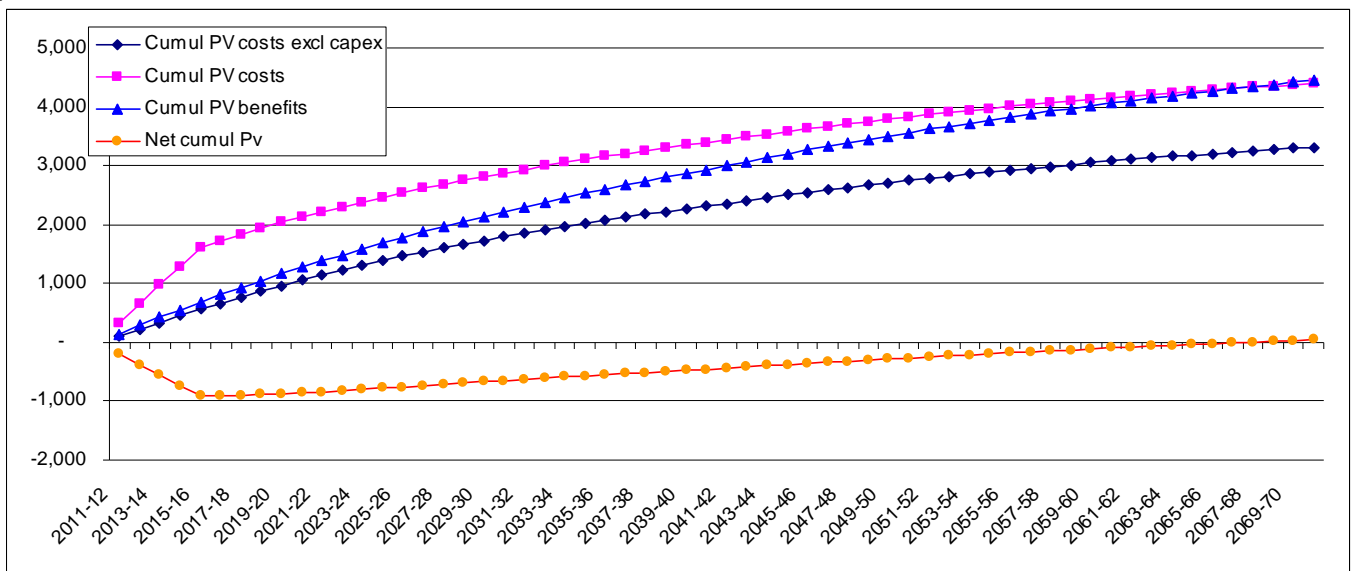
64. The benefit figures that can be monetised total £11.2bn over 60 years when not discounted. This reflects a slowly rising annual cost avoided, reflecting a rising rate of blockages on an untransferred private network. When discounted over 60 years, the PV of the avoided cost and time is £4.4bn in 2008 prices. This is certainly an underestimate, as it only represents the portion of the benefits which it has been possible to monetise, and not the considerable external social benefits that will arise.

65. It has not been possible to monetise all the benefits, so no complete NPV figure is available. The estimate available that includes repair and time benefits only is £49m.

Table 3 - Estimated PV costs and monetised benefits, £m 2008 price base (based on Tables 1 and 2 above).

	5 year totals				PV first 10 years	PV first 20 years	PV 60 years
	2011-12 – 2015-16	2016-17 – 2020-21	2021-22 – 2025-26	2026-27 – 2030-31			
One off capex upgrades	1,037	43	-	-	1,080	1,080	1,080
Recurring annual cost (IRE, MNI, plus opex)	559	495	407	333	1,054	1,794	3,318
<b>All costs</b>	<b>1,596</b>	<b>538</b>	<b>407</b>	<b>333</b>	<b>2,134</b>	<b>2,874</b>	<b>4,398</b>
<b>All benefits</b>	<b>683</b>	<b>590</b>	<b>510</b>	<b>440</b>	<b>1,273</b>	<b>2,223</b>	<b>4,448</b>
<b>NPV</b>					<b>-861</b>	<b>-651</b>	<b>49</b> (As in Summary sheet)

Chart 1 Cumulative PV of costs and monetised benefits over 60 years, discounted to 2008 price base, £m



The table and chart above show that the PV of benefits slightly outweighs the PV of annual costs from the start, and this net advantage of transfer rises over time as benefits rise gradually. However, this annual advantage of transfer is small, and the capex arises entirely upfront, so it takes a very long time (almost 60 years) for this annual advantage to offset the capex and produce a positive NPV.

## Bill impacts of Transfer Option

66. Only the financial costs for WaSCs will be reflected in customer bills. Uncertainty surrounding the extent and condition of existing assets makes it impossible for Ofwat to estimate impacts on bills with certainty or known margins of error<sup>13</sup>. Calculations indicate an average rise of £10 per year on all sewerage bills from 2011-12, or from £4 to £12 per bill p.a. across different water companies. As above, the bill effects are highly uncertain, as the quantities, and particularly the conditions and remedial costs for each water company area are unknown. The majority of the cost WaSCs will bear, and the majority of the bill impact, represent a transfer of cost from private sewer owners (including Local Authorities) to all WaSC customers. We will continue to work with Ofwat to better understand likely costs and bill impacts.

## Risks

67. Uncertainty over the extent and condition of existing private sewers means that WaSCs cannot provide Ofwat with full and accurate data from which to calculate levels of funding in future price determinations. An original UKWIR estimate that it would cost £450m to map and survey private sewers has recently been revised to around £1bn. It is not proposed that this proactive, full surveying is undertaken. Ofwat's current estimates of transfer's financial costs to WaSCs – costs passed on to the generality of customers via sewerage bills – are based on assumptions and should be considered indicative only. It is not possible for Ofwat to estimate ranges around the figures at this stage.
68. We have taken advice on the risk of legal challenge to the proposed scheme, especially on certain issues concerning the compatibility of our policy with Article 1 of Protocol 1 of the European Convention on Human Rights (the protection of property rights). The advice is that a properly made and administered adoption scheme is unlikely to contravene human rights. In particular, sufficient mechanisms exist in the Water Industry Act 1991 to accommodate a landowner's current right to have a sewer removed or moved where he has granted an easement, such that a divesting of the right would not contravene human rights. Those mechanisms include a provision for the award of compensation. In any event, any interference with property rights may be objectively justified in the circumstances.

## Possible unintended consequences

69. Once a transfer date is announced, some property developers might be dis-incentivised from constructing new sewers and laterals to (current) adoptable standards, in the knowledge that these assets will be transferred to WaSCs in the future. However, if an agreed mandatory design and construction standard is established as soon as possible, before transfer takes place, this potential problem can be mitigated.
70. Announcing a transfer start date may cause those private sewer owners whose assets are in need of repair to delay or defer repairs. This could cause environmental and amenity problems. However, local authorities do have the power to intervene until such time as transfer takes effect.
71. Land owners, over whose land a relevant easement has been granted for the installation of private sewers, may hold the right to require the owners of the properties served by the private sewer to pay for the sewer to be moved. This right will be lost once the sewer transfers. WaSCs have discretionary powers to charge a land owner for diverting a sewer. We have been unable to find any examples of land owners exercising their right and cannot quantify the cost or "benefit" lost, but such landowners might emerge and

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<sup>13</sup> Bill effects have been calculated using the Aquarius 3 financial model, version 6 (WIFL), with offline calculations for the latest September 2008 information on the km transferring and expected costs. Aquarius 3 includes a cost of capex for WaSCs and for each WaSC it applies the assumptions for asset life apportionments as used in PR04 final determinations.

seek compensation for their lost right when the transfer is announced. The appeal mechanism under the 1991 Water Industry Act will allow for this and it is possible that some landowners may make spurious claims for compensation which will fall to Ofwat to determine. In the absence of any useful data or assumptions we have not monetised potential costs.

### **Implementation Monitoring and Enforcement**

72. These issues are covered in more detail in annex D. Implementation will be by means of regulations that make transfer a statutory duty for WaSCs. Monitoring will be part of Ofwat's regulatory duties and enforcement under the regulations will be the duty of the Secretary of State or Welsh Ministers.
73. Note that water is a devolved issue and the Welsh Assembly Government may take a different decision for Wales. The data in this IA covers England and Wales.
74. The regulations will impose no administrative burdens on WaSCs or independent drainage contractors in the terms of this IA, but we will continue to keep this under review with Ofwat.

### **Compensatory Simplification**

75. Implementation will simplify a confused regime of responsibility, providing much greater clarity for homeowners, WaSCs and the independent drainage sector. It has not been possible to monetise this benefit.

## Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

**Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.**

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	Yes
Small Firms Impact Test	Yes	Yes
Legal Aid	No	Yes
Sustainable Development	No	Yes
Carbon Assessment	No	Yes
Other Environment	Yes	Yes
Health Impact Assessment	No	Yes
Race Equality	No	Yes
Disability Equality	No	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	Yes

## Annex A – Background information

### What private sewers and laterals are

1. Sewers by definition serve more than one property and drains serve a single property. There are two types of sewer and drain: foul and surface water, and the proposals and data in this IA cover both types. Public sewers<sup>14</sup> are the responsibility of WaSCs, public limited companies<sup>15</sup>, which came into existence following the privatisation of the water industry in 1989. Ofwat is the economic regulator of the water industry, setting its price limits and having powers of enforcement over aspects of performance.
2. All other sewers that drain to a public sewer are by default ‘private sewers’ which (like private laterals) fall outside of this operating regime and are the shared responsibility of the owner(s) of the properties they serve. Usually only a small extent of the total length of a private sewer will actually lie in a property owner’s own boundary. Drains that lie **outside** the boundary of a property and connect either to a private sewer that drains to a public sewer, or directly to a public sewer, are known as lateral drains or laterals. They are the responsibility of the individual property owner they serve and laterals may lie under private third party or public land including highways.
3. Private sewers and laterals that connect to the public network will potentially affect it. The diagram at **Annex E** illustrates typical arrangements for private sewers and laterals draining to public sewers and the pie chart in Figure 1 below shows the estimated split in the categories:

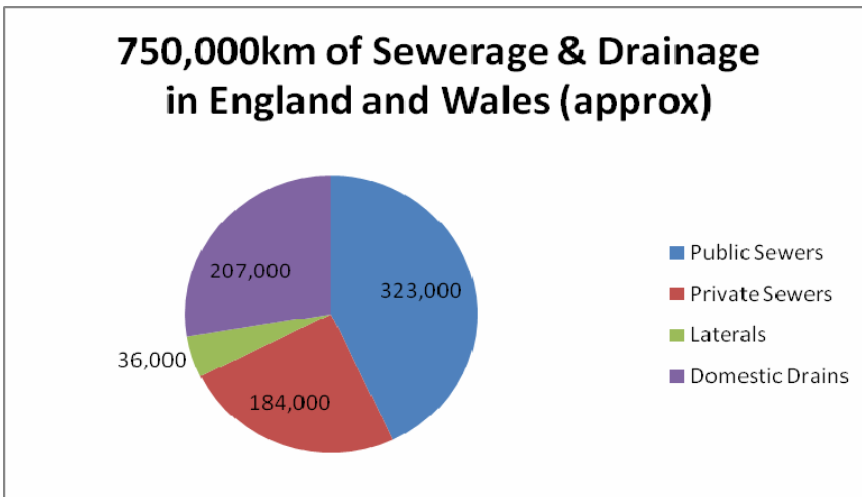


Figure 1 – Estimated breakdown of ownership of sewerage assets in England and Wales by length (km). Source: Ofwat 2008

<sup>14</sup> The 1936 Public Health Act brought in the term ‘public sewers’ and applied it to all sewers vested in local authorities on 1 October 1937. The definition of ‘sewer’ was contained in section 4 of the 1875 Public Health Act. Sewers constructed after that date by a local authority vested in that local authority automatically unless they were laid to drain the authority’s own land, e.g. a housing estate, when they became public sewers only if the authority adopted them. Sewers constructed after 1 October 1937 by someone other than a local authority could be adopted by the local authority, but no mandatory provision was ever made. The 1937 definition does not apply to inner London where local arrangements may apply

<sup>15</sup> Dwr Cymru is an exception; it is owned by Glas Cymru Ltd.

Table 4 - Quantities of Assets. Source: Ofwat Sept 2008

Asset Type	Quantity or share
Domestic drains - not transferring	207,000 km <sup>16</sup>
Public sewers – already with WASCs	323,000 km <sup>17</sup>
Private sewers	<b>184,000 km<sup>18</sup></b>
Lateral drains	<b>33,000 km<sup>19</sup></b>
Private Sewers and Laterals to transfer	<b>220,000 km</b>
Public sewerage network total after transfer	543,000 km
Public sewerage network uplift after transfer	68%
Combined Private Sewers, Laterals and Domestic drains before transfer	428,000 km
% of which transferring	52%
Number of medium-sized Pumping Stations transferring	<b>5,000<sup>20</sup></b>

4. WaSCs' own estimates, following their most recent investigations reported in draft business plans, suggest that there are 210,000 km of private sewers and laterals transferring, indicating a fair level of confidence in the estimate of the network extent. Confidence levels are lower for the number of pumping stations.
5. Drains that lie **within** the curtilage of a property are also the responsibility of the property owner. There are no proposals to change an owner's responsibility for them. Responsibility for these assets is generally known and accepted by owners and problems are usually minor.

#### Local Authorities and private sewers

6. The 1936 and 1961 Public Health Acts and the 1984 Building Act give local authorities the power to require that owners of a sewer or lateral causing an environmental or amenity problem must rectify the situation and are the only current mechanisms for ensuring repairs are made to faulty private sewers or laterals.
7. Local authorities, typically Environmental Health Officers (EHOs), can serve notice on a property in cases where a private sewer or lateral is causing an environmental or amenity problem, requiring the owners to act. If owners cannot or will not resolve the problem, local authorities can undertake the repairs and either bear the costs or attempt to recover them from the owners concerned.<sup>21</sup> Although a solution, this is a last resort for local authorities.

<sup>16</sup> See UKWIR 2007 report ref 07/RG/07/12 "Uncertainties within private sewers model"

<sup>17</sup> June Returns for 2007-08 from sewerage companies

<sup>18</sup> June Returns for 2007-08 from sewerage companies

<sup>19</sup> June Returns for 2007-08 from sewerage companies

<sup>20</sup> 5,000 is the middle of a range of 4,000-6,000 estimated by WRc in 2002/03 ref UKWIR report ref 03/RG/07/2. Since then serious doubt has been cast upon it. However, it was used in the derivation of overall costs by WRc in 2003 and by Ofwat for the costs and bills impacts that have since been published in the two Defra (p)RIAs – Ofwat.

<sup>21</sup> Although local authorities can require private sewer owners to perform repairs to problematic sewers under sections 59 and 99 of the Building Act 1984, the owners may default. In this event, under the Local Government (General Provisions) Act local authorities have the power to register a charge on a property, recoverable on sale. If problems to private sewers or laterals can be resolved at a cost not exceeding £250, local authorities may perform or arrange repairs under section 17(1) of the Public Health Act 1961.

8. Local authorities provided information on dealing with problems associated with private sewers and drains as part of Atkins' initial evidence gathering for Defra's review. Atkins estimated the total annual costs for the maintenance and repair of private sewers and drains at between £64m and £160m.<sup>22</sup>

Description	Cost
Estimated annual costs reported by insurers in respect of repairing private drainage.	£109 million
Estimated annual costs reported by local authorities in respect of repairing private drainage (Note, this includes recovered costs).	£125 million
Estimated annual expenditure cost of maintaining private sewers (this is based on a comparison with the annual operational and expenditure costs for public sewers, averaged over the past five years). (Paragraphs 10.4 – 10.7)	£64 million – £160 million

*Table 5 – Atkins estimate of private sewer costs (Defra 2003 Private Sewers Consultation). Note that these figures have been updated to today's values when assessing costs and benefits in this IA. Claims for flats and housing associations and handling costs for insurers, identified by Atkins in their original research (totalling £45m), have also been included in figures used in this IA.*

### WaSCs and private sewers

9. WaSCs can adopt private sewers and new laterals,<sup>23</sup> but at their discretion. There are two mechanisms by which private sewer owners may potentially have their sewers adopted by WaSCs. For **new** sewers, owners-to-be or the developer responsible for their construction can seek an adoption agreement under section 104 of the Water Industry Act 1991. Minimum criteria for construction are set out in the current version of the water industry document, Sewers for Adoption<sup>24</sup>. However, within these criteria different WaSCs may impose their own separate requirements and developers do not have to offer the sewers they build for adoption. Neither is it a case of caveat emptor, adoption agreements may be placed when a house-holder buys their property but subsequently fall through before adoption takes actual place.
10. Owners of **existing** private sewers can apply to their WaSC to have their asset adopted under section 102 of the Water Industry Act 1991. Adoption is at the discretion of the

<sup>22</sup> Note that this range includes the estimated £125m of costs to local authorities.

<sup>23</sup> The Water Act 2003 includes legislation to allow WaSCs to adopt new lateral drains. WaSCs may be willing to adopt existing laterals (built before 2003) if they have been built to adoptable standards, but owners may be required to pay for their asset to be brought up to these standards.

<sup>24</sup> Sewers for Adoption is a guide produced jointly by Water UK and WRc plc (Water Research Centre) designed to assist developers in the design and construction of new sewers to a standard suitable for adoption by WaSCs under Section 104 of the Water Industry Act 1991.

WaSC, which can require applicants to bring their sewer up to the WaSC's adoptable standard. Sewers for Adoption does not apply to existing sewers and WaSCs make individual assessments. An 'adoptable standard' would usually satisfy criteria covering such things as construction materials, condition, capacity and the location and routing of infrastructure to serve the area or a region as a whole. A WaSC is unlikely to adopt a private sewer with existing problems unless the sewer is deemed to have strategic importance to the network (a low probability) or the owner brings the sewer up to an adoptable standard first.

11. All WaSCs offer some form of insurance cover for their customers, many of which are 'drainage policies' from one particular provider of insured home repair solutions and emergency services. This 'Drainage Cover' is available for 'drainage pipes' and includes those outside the property boundary – i.e. lateral drains. It also includes drains on private land to which owners have the 'legal right of access'. The policy does not however offer cover for private sewers.
12. Some home insurance policies can offer cover for pipes for which their owner is 'legally responsible', which could include private sewers, but the extent of cover varies from policy to policy. However, policies will generally only offer cover in the event of accidental damage, not wear and tear. Owners of private sewers or laterals with existing problems may find that taking out specific cover for their assets is prohibitively expensive if there is a history of difficulties.

#### Foresight study & integrated drainage

13. The Foresight Future Flooding Report<sup>25</sup> considers urban flood risk to be a problem that could worsen over the period of the report – from 2030 to 2100 – with the number of properties potentially at risk rising from below 100,000 to almost 400,000 and damages rising to as much as £15 billion, depending on the scenario. The report also noted that there is considerable uncertainty in this area, but pointed out that if climate change impacts are significant, urban drainage systems, which include highway drains, watercourses, surface water and foul sewers, would reach capacity more frequently. A separate report (ICF International (2007), The potential costs of climate change adaptation for the water industry, [http://www.environment-agency.gov.uk/commondata/acrobat/icf2007\\_cc\\_report\\_1920959](http://www.environment-agency.gov.uk/commondata/acrobat/icf2007_cc_report_1920959)) suggests WaSCs could have to spend around £1bn per year to stop sewer flooding getting worse given increasingly intense rainfall events
14. The Foresight report found that there is currently no consistent mechanism for measuring asset performance as it relates to sewer flooding. The report also noted that in areas where sewers interconnect with a river or coastal system, their capacity might be compromised due to increased river depth or rising coastal waters reaching sewer outlets. The existence of private sewers further complicates monitoring these sorts of problems because they are a considerable obstacle to more integrated management of the network. Their ownership is widespread without being clearly recorded and WaSCs do not have control over a significant part of the network. Problems such as infiltration – where water enters pipes through the ground – and insufficient capacity can occur on private sewers which in turn affect the public network. This can be a hindrance to WaSCs in their aim to minimise inflows of surface water and infiltration of groundwater entering their public sewer networks, and forces them to deal with the consequences of these additional flows, rather than being able to tackle the causes.

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<sup>25</sup> The Foresight Future Flooding report is the most wide-ranging analysis of flood risk in the UK. It was released on 22 April 2004 by the Department of Trade and Industry (DTI).

15. Responses to the Defra consultation Making space for water<sup>26</sup> noted that a number of different organisations are responsible for various parts of the sewerage and drainage network; for example, the Highways Agency, WaSCs, the Environment Agency, local authorities and internal drainage boards. The majority of responses suggested that this arrangement is confusing and has resulted in a lack of integration in tackling problems.
16. Atkins' review of private sewers and drains on behalf of Defra (see earlier IAs referenced in paragraphs 2 and 3) found that local authorities received reports of flooding from private sewers affecting approximately 108,000 properties per year, although other sources indicated that the total number of incidents of external flooding may be as high as 282,000.<sup>27</sup>

#### Quantifying future problems with private sewers

17. It is not possible confidently to quantify an increase in problems with private sewers, as it may be for public sewers. The condition of public sewers in England and Wales is graded by WaSCs and is based on the presence and level of defects on assets defined as 'critical' sewers.<sup>28</sup> Where known, external conditions – namely the physical environment in which the pipework is situated – are applied to give a likelihood of failure and a risk grading is given to the asset. This type of analysis however cannot be applied to the private sewerage system because inspection of private sewers is reactive only and usually carried out by independent private drainage businesses called out by owners. There is no regulatory requirement or incentive for WaSCs to keep records of sewerage infrastructure not vested in them. Estimates in this IA for blockages on the private sewer network are based on data previously collected in interview with a major drainage repair company, grossed up for England and Wales totals. It is assumed that the rate of blockages per private sewer km will increase by 0.5% a year without a transfer (in light of evidence of a rise in the rates on public networks of 0.35% per year over the last 15 years).

#### Estimates of benefit of transfer from cost avoided: current spending on repair and disputes over private sewers

18. One estimate of current spending derives from the £125m p.a. spending by Local Authorities in 2002, from Atkins data<sup>29</sup>. Local Authorities currently incur costs on private assets as the owner of social housing, and in sorting out local private sewer disputes. It is assumed that 52% of this spending applies to the 52% of private pipes and drains that is transferring. The figure is then grossed up, to reflect the fact (in Atkins) that Local Authorities attend at most 40% of incidents. Inflated to current prices this totals £179m p.a. Within this is around £13m p.a. that reflects 52% of total Local Authority spending on sorting out problems and disputes about private sewer ownership.
19. The second estimate of current spending comes from the total turnover of the drainage repair industry (data from insurance industry's Drainage Forum, presented in the July 2007 consultation IA<sup>2</sup>), apportioned to the 52% of the private network of pipes and drains that is transferring, and inflated to today's prices. With the £13m expenditure avoided by LAs in sorting out disputes, this totals £166m p.a..

<sup>26</sup> Defra held a three month consultation on a new cross-Government strategy for flood and coastal erosion risk management in England during Autumn 2004. More information on 'Making Space for Water' and the Government's first response to it is available at: <http://www.defra.gov.uk/environ/fcd/policy/strategy.htm>

<sup>27</sup> Review of Existing Private Sewers and Drains in England and Wales, Analysis of Consultation Responses, Penultimate Report (Part 1), Atkins, January 2004.

<sup>28</sup> Sewers are classified depending on factors such as size, depth, material and location. 'Critical' is an operational term meaning that a sewer is important. The majority are the larger diameter pipes.

20. The third estimate derives from the annual value of insurance claims for accidents and emergencies on private drains and pipes (Atkins<sup>30</sup>). The insurance industry estimates that 20% of the claims are for private sewers, and here it is assumed that including claims on laterals raises this to 24% (based on their proportional additional length in km). As wear and tear and the uninsured are not represented in the claims figure, the estimate is doubled to approximate the full cost of annual repairs on the private network (i.e. assuming only half of private owner spending is covered by insurance). The figure is inflated to today's prices and with the £13m p.a. cost avoided by Local Authorities in sorting out disputes, this gives £103m.

### Previous consultations and stakeholder contribution to the evidence base

21. The review has drawn on 3 consultations, a large stakeholder seminar and independent qualitative customer research. The review has also benefitted from the advice and work of a stakeholder steering group comprising Communities and Local Government, Ofwat, CCWater, Water UK (the industry body), the Environment Agency and Local Authorities and post the 2007 consultation, also including representatives from the Department for Business, Enterprise & Regulatory Reform, the insurance industry and independent drainage sector.

22. Respondents to the 2003 consultation strongly favoured transfer of ownership to WaSCs (90 % of the 81% supporting transfer of ownership). As part of its 2004 Response to the consultation, the Government agreed to hold a seminar for stakeholders to discuss the key issues surrounding the transfer of private sewers and laterals to WaSCs. The information gathered during the day's discussions contributed significantly towards the Government's decision to transfer ownership announced in February 2007 and to the implementation options put forward in the 2007 Implementation consultation. Further details of the seminar and the presentations made on the day are available by emailing private sewer.consultation@ defra.gsi.gov.uk

23. In May 2005 Defra and the Welsh Assembly Government commissioned market research to gain more information about the views sewerage customers may have about transfer. CCWater was closely involved and we are grateful for its input and assistance. The research aimed to fill a gap in the responses to the original consultation, which came mainly from industry and local authorities. The independent qualitative customer survey<sup>31</sup> consisted of 20 focus groups, two in each of the ten WaSC areas. A report on the findings of the survey, completed in August 2005, is available by emailing private sewer.consultation@ defra.gsi.gov.uk . The key findings of the survey included:

- (i) The majority of participants were not aware of the responsibilities of private sewer owners, and believed there was a lack of information available to the public
- (ii) The majority of participants viewed existing ownership arrangements as "unfair, inconsistent, complicated and untenable." Most saw few advantages with the existing arrangements
- (iii) The majority of participants supported a transfer of private sewers and lateral drains to WaSCs
- (iv) The majority of participants supported the idea of an overnight automatic transfer as opposed to phased or 'on application' methods

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<sup>6</sup>"Review of Existing Private Sewers and Drains in England and Wales Consultation Paper" for Defra and Welsh Assembly Govt, July 2003

<sup>30</sup> "Review of Existing Private Sewers and Drains and E&W, Stage 2 Report" to Defra, Feb 2003

<sup>31</sup> Performed by MVA Ltd in partnership with WRc (Water Research Centre).

- (v) The majority of participants thought that all customers should pay for the transfer of ownership rather than only those currently served by private sewers.
- (vi) Participants in the research thought that measures to encourage the provision of information to customers would not, on their own, be sufficient to address the problems caused by private sewers. A majority of participants expressed a preference for transfer to WaSCs, believing that local authorities were better suited to handling environmental health problems, providing information to customers on private sewers and overseeing planning issues and consents.
- (vii) There was clear support among participants for transfer to include lateral drains. This view was largely based on a risk of potentially high costs associated with their maintenance and repair and perception that any pipework outside the boundary of their property should not be their responsibility. There was particular concern about the possibility of damage to laterals caused by factors outside the control of the property owner.

## **Annex B - Responses to the July 2007 Implementation Options Consultation**

24. The Government's decision to transfer announced in Feb 2007 was based on an assessment of the costs and benefits of an automatic overnight transfer of assets. This form of transfer was assessed because it would appear to provide the most comprehensive solution to the range of problems presented by existing private sewers and laterals. It would also provide the most clarity in terms of where ownership rests and be the most straightforward to implement. However, overnight automatic transfer on Ofwat's estimates is likely to incur front-loaded capital expenditure, and the Government acknowledged that there are other ways of implementing transfer with the potential to reduce or spread this expenditure (with reduced benefits) and that a consultation should be held on these. The Government continues to attach considerable priority to keeping water and sewerage bills affordable, including for those on low incomes; minimising the burden on water and sewerage charges was therefore an important factor when considering how best to take forward the transfer. A significant amount of work was done with stakeholders to understand implementation issues and to consider other forms of transfer that might spread or reduce the costs given their uncertainty.

25. 119 individual responses were received, categorised as follows:

	<b>Number</b>	<b>Percent</b>
<b>Drainage contractors</b>	6	5%
<b>Water and Sewerage Companies (WaSCs)</b>	10	8%
<b>Local Authorities</b>	52	44%
<b>Statutory Bodies/Government</b> (includes Ofwat, Environment Agency, CC Water and Other Government Departments)	6	5%
<b>Private Individuals/Residents Associations</b>	19	16%
<b>Others</b> (includes trade associations and professional bodies)	26	22%

*Table 6 – consultation responses by stakeholder category*

26. The majority of respondents favoured an overnight automatic transfer of ownership of private sewers and lateral drains (connected to a public sewers) to WaSCs, though responses from independent drainage businesses did not. Most respondents also favoured

the inclusion in transfer of non household sewers and laterals and private surface water sewers that drain to watercourses. There was a general preference for phasing the transfer of pumping stations over as short a period as possible, but no clear agreement on the criteria for determining the prioritisation of their transfer. The responses pointed to overall support for a minimum and a consistent build standard for new sewers. Across the consultation, key message included the need for a more integrated sewerage network and the objective to have clarity of ownership and fairness for householders. A comprehensive summary of responses can be viewed at:

<http://www.defra.gov.uk/environment/water/industry/sewers/pdf/summaryresponses-2007consultation.pdf>

***Key response – Preferred Implementation Option***

27. Given that that the Government’s decision to transfer had been taken on an analysis of automatic overnight transfer, we asked (Question 6): Do you think that any of the alternatives to an automatic overnight transfer of private sewers and laterals offer a workable solution to the problems caused by these assets? Please give reasons for your answer.

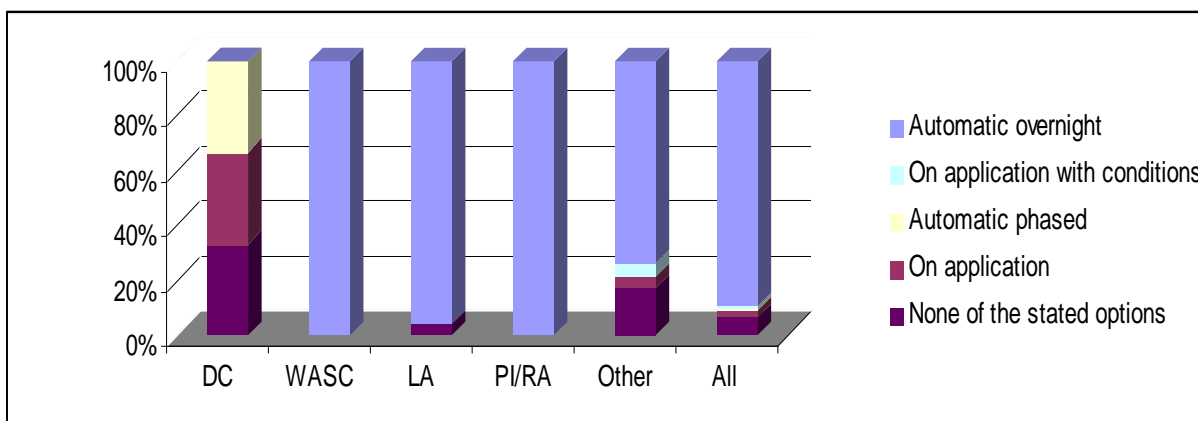
The alternatives are:

- Automatic phased transfer
- ‘On application’ transfer
- ‘On application’ transfer, with conditions

***Number of responses (some did not express a preference): 101***

	<b>Number</b>	<b>Percentage of Q6 respondents</b>
Automatic overnight	90	89%
Automatic phased	1	1%
On application	2	2%
On application with conditions	1	1%

*Table 7 and Graph1 - consultation responses by implementation option and stakeholder category.*



**Responses by type of respondents:**

DC: Drainage Contractor

WASC: Water and Sewerage Company

LA: Local Authority

PI/RA: Private Individual/Residents' Association

<b>Drainage Contractors- number of responses: 3</b>		
	<b>Number</b>	<b>Percentage of Q6 respondents</b>
Automatic overnight	0	0%
Automatic phased	1	33%
On application	1	33%
On application with conditions	0	0%
<b>WaSCs – number of responses: 10</b>		
	<b>Number</b>	<b>Percentage of Q6 respondents</b>
Automatic overnight	10	100%
Automatic phased	0	0%
On application	0	0%
On application with conditions	0	0%

<b>Local Authorities – number of responses: 50</b>		
	<b>Number</b>	<b>Percentage of Q6 respondents</b>
Automatic overnight	48	96%
Automatic phased	0	0%
On application	0	0%
On application with conditions	0	0%
<b>Private Individuals/Residents' Associations – number of responses: 15</b>		
	<b>Number</b>	<b>Percentage of Q6 respondents</b>
Automatic overnight	15	100%
Automatic phased	0	0%
On application	0	0%
On application with conditions	0	0%

*Table 8 – detailed breakdown of stakeholder responses*

28. The majority of respondents supported automatic overnight transfer. Of those respondents who did not support the automatic overnight transfer, drainage contractors suggested that phasing over more time, or transfer by application, would allow time for drainage contractors to conform to WaSC requirements and/or diversify their trade, and at the same time provide sufficient time for WaSCs to adapt to their increased responsibilities (see the Small Firms Impact Test).

29. Ofwat supported an 'on application' transfer, with conditions, for reasons of fairness, but acknowledged the extra administrative burden of this approach. Of the two automatic

options, Ofwat favoured the phased transfer as they maintained it would have the benefits of integrated planning and simplicity and allow an overnight transfer in more manageable areas, in effect acting as pilots for later phases. At the same time, Ofwat suggested that this method would ease any adverse impact on small drain repair companies. Ofwat also supported a longer period to take into account considerations of affordability - advocating flexibility so that the eventual timescale for transfer can be influenced by considerations of environmental need, affordability and the prevailing economic climate, with pilot schemes to help to identify the most appropriate timescale.

30. All private individuals responding to this question supported the quickest possible transfer of private sewers primarily on grounds of fairness for customers and alleviating flood risk.

31. The Environment Agency favoured automatic overnight transfer. CCWater favoured this too, for reasons of fairness but stressed that work programmes should be rigorously prioritised to manage costs and bill impacts. Water UK favoured this option as well. Most WaSCs indicated that they did not support any phasing option, stating that the administrative costs associated with phasing would outweigh the costs of transferring overnight.

***Key response – pilots***

32. We asked (Question 16): Do you think that pilots should be run to test methods of implementing transfer? Please give reasons for your answer and if your answer is yes, how you would select statistically representative pilot areas?

***Total (number of responses: 87)***

	<b>Number</b>	<b>Percentage of Q16 respondents</b>
Yes	17	21%
No	61	70%

***Local Authorities (responses: 43)***

	<b>Number</b>	<b>Percentage</b>
Yes	8	19%
No	31	72%

***WaSCs (responses: 10)***

	<b>Number</b>	<b>Percentage</b>
Yes	1	10%
No	8	80%

*Table 9 – consultation responses on pilots*

33. On the question of pilots, respondents were split between drainage contractors and Ofwat who supported the use of pilots, and all private individuals (except one) who did not. A minority of Local Authorities also supported the use of pilots. Ofwat’s support for pilots was based on the perceived need for more information to be gathered on the extent of private sewers and the costs associated with the transfer.

34. Respondents in favour of the use of pilots gave reasons including: a current lack of awareness of the extent of problems that will occur with private sewer transfer; pilots would help to identify initial problems and iron these out ahead of overall transfer; the need to establish the impact on small drainage companies.

35. The majority of respondents were opposed to running pilot schemes, primarily on the basis that they would delay implementation of transfer and that there are too many difficulties associated with finding a representative area, especially as there are such a large number of variables: weather, geography, age of buildings etc. in order to overcome all of these possibilities, the pilots would have to run for a number of years, which would be costly and delay implementation and be confusing for customers. It was also noted that there may be perceived inequalities with some customers or areas being part of a pilot scheme whereas others are not and if pilot schemes failed, there would be increased costs in terms of feedback and analysis.
36. To illustrate the potential burden pilots could bring, in order for an area to be representative, respondents suggested a number of criteria that areas should meet:
- Part of the scheme should include parts of London (due to the use of different types of material from the majority of the country).
  - A large pitch fibre system should be included.
  - There should be a mixture of rural and urban settings from random locations around England and Wales.
  - Random development sites should be used.
  - Discrete sewerage systems should be included.
  - Areas that carry a mix of properties of varying ages, and have a significant proportion of “unadopted properties”.
  - Areas where the WaSC has a detailed, and recent, knowledge of the whole sewerage system including those parts which are regarded as unadopted.
  - There should be a good liaison between the WaSC and other agencies involved in sewerage (Environment Agency, Highways and local councils) in the area.
  - A variety of landscapes should be included.
  - A highly populated old industrial area should be selected.
  - WaSCs should determine areas so that they are based on drainage rather than political or geographical boundaries.

#### Summary of Implementation Options appraisal

37. As stated earlier, the Government’s decision to transfer was based on an assessment of automatic overnight transfer. The 2007 consultation asked whether alternatives to this method of implementation were preferable and set out the costs and benefits of the three other methods of transferring ownership referred to earlier.
38. 89% of consultation responses to this question supported automatic overnight transfer. The responses were considered with the help of the stakeholder steering group, who once again examined the case for each option. The steering group endorsed the consultation responses preference for automatic overnight transfer and considered the option in greater operational detail. (Note that Ofwat’s preference would be to phase a transfer over a period of time or exclude laterals and independent drainage representatives stressed the need for a suitable lead in time to allow businesses to plan for the change in their market)
39. Automatic phased transfer: determining prioritisation categories for phasing by asset condition, area, numbers served and/or time period would create potential inequalities across the customer base. The phasing criteria would make ownership responsibilities more complicated to understand for customers, independent drainage businesses, WaSCs and Local Authorities and the administrative burdens associated with phasing would outweigh the costs of transferring overnight.
40. As part of the stakeholder steering group’s work post consultation, Welsh Water proposed phasing by asset type, separating the transfer of private sewers and laterals before finally

transferring pumping stations. The steering group looked at this option. Ofwat estimates suggest that transferring laterals later might reduce sewerage bill impacts, but work from Water UK suggested that cost savings across WaSCs operating mainly in England would not be significant enough to balance the potential administrative burdens and customer confusion. As such given consultation responses in respect of phasing and lack of support among the steering group this option has been rejected for England, but given Welsh Water's data on laterals, may be more attractive as an option in Wales.

41. On application methods: these methods have been rejected given the very insignificant support it received in consultation responses and from the steering group, and the limited benefits identified in the consultation paper.
42. Pilots – The steering group (Ofwat excepted) endorsed the consultation responses and did not see a case for pilots made out.

### **Annex C – Automatic Overnight Transfer**

43. The two previous IAs (see paragraphs 2 and 3 in main IA) set out automatic overnight transfer as all existing private sewers and laterals connecting to the public network by gravity being transferred into the ownership of the WaSCs from a set date. The transfer of existing private pumping stations and sewers draining to them would be phased from a later date as the location of some pumping stations is uncertain and they may need a comprehensive assessment for health and safety purposes.
44. Transfer of private sewers and laterals would be automatic to ensure that all assets were transferred at one time. WaSC ownership and maintenance responsibilities for the transferred assets would be established in one step. All WaSC customers would have their sewers and lateral drains maintained by their WaSC. This would avoid potential uncertainties for customers, WaSCs and drainage businesses and provide a clear means of addressing private sewer problems. It would establish ownership by definition rather than location or phased timing, making it more straightforward to establish responsibility and ease administrative burdens. Those parts of the private drains serving individual properties that fall inside the property curtilage would remain the responsibility of the property owner as is currently the case for adopted sewers and provide a continuing market for the independent sector (but see also paragraph 6 of the small firms assessment).
45. Many sewage pumping stations serving private sewers may be in an unsafe condition or in locations routinely inaccessible to WaSCs. It is estimated that up to 5% of private sewers in England and Wales will drain to a private pumping station, based on the proportion recorded on the public network.
46. WaSCs have highlighted that private pumping stations may have health and safety issues as well as problems with their overflow consents and mechanical and electrical systems. Some may be inaccessible, for instance located in garages and gardens and may take power supplies from existing domestic arrangements. Therefore consideration will need be given to how to treat these and the sewers upstream of them.
47. As this is an automatic transfer, the existing appeal mechanisms under the 1991 Water Industry Act will apply to allow owners to appeal against transfer to Ofwat.
48. We agree with consultation responses that commercial properties should be included in transfer. 80% of respondents were in favour of this, 1% were opposed to and the remainder did not express a preference. The majority of those who supported the inclusion of non-household properties, did so on grounds of clarity and integration, also noting that it may be difficult to identify non-household sewers and that householders who are upstream of an industrial estate would be excluded if non-household sewers were not transferred. We

agree that it would administratively burdensome and costly to separate out commercial sewers (mapping would be necessary).

49. Respondents also favoured including in transfer those piped surface water sewers draining to watercourses (88% in favour, 7% against). A final decision on these surface water sewers will be made once Defra's work on wider surface water management reaches its conclusions early in 2009.
50. The data in this IA includes commercial properties and surface water sewers, Ofwat advise that their effect on the cost estimates is not significant.

#### **Annex D – Implementation, Monitoring and Enforcement**

51. Water is a devolved responsibility. Though this IA contains data covering England and Wales, separate decisions on implementation may be taken by the Welsh Assembly Government.
52. Provisions were made in the Water Act 2003 to make transfer a statutory duty for WaSCs by way of an Affirmative Resolution Statutory Instrument (SI). If the recommendations in this IA are accepted, an appropriate SI will be drafted and consulted on as soon as possible.
53. Given the time needed for the legislative process to be completed and the desire to give small businesses in particular, substantially more than the minimum lead in time, we propose that the implementation date is April 2011. If the recommendations are agreed and announced this year(2008), stakeholders will have over two years' notice of how and when transfer will happen. The stakeholder steering group has endorsed this as appropriate for small drainage businesses. We suggest April 2011 rather than October 2010 as a commencement date as we understand that autumn can be a busy time for drainage clearance work. A communication strategy is being completed, involving key stakeholders such as BERR, Water UK and CCWater.
54. Legislative implementation will include introducing mandatory adoption of new sewers and laterals connecting to the public system and a mandatory design and construction standard

#### **Monitoring**

55. Ofwat's Periodic Review: The costs associated with the transfer and subsequent management of private sewers and laterals by WaSCs will be recovered via customer bills, appearing as increases to the annual sewerage bill and will be subject to scrutiny by Ofwat.
56. Ofwat is the independent, statutory economic regulator of water and sewerage services in England and Wales. From 1 April 2006 Ofwat's functions were formally transferred from the Director General of Water Services to the Water Services Regulation Authority (WSRA), but the department is still publicly known as Ofwat. Ofwat has sole responsibility for setting price limits as a condition of WaSCs' appointments and designs, and Ofwat leads the periodic review.
57. Ofwat also has a primary duty to further the consumer objective by having regard for and protecting the interests of customers. The periodic review process and the information it provides enable Ofwat to establish with sufficient certainty what the functions of companies will be in the five years under review, what the costs of efficiently carrying out those functions will be, and what will be in the interests of customers.

58. WaSCs operate under appointments, granted by the Secretary of State for Environment, Food and Rural Affairs and by the Welsh Ministers, to provide water and sewerage services in England and Wales.
59. Ofwat monitors the activities of companies on an ongoing basis. Every year it asks the companies to provide information about the previous year (ending 31 March) in the June Return. These reports provide details on a wide variety of activities including levels of customer service, new additions to the network, and leakage information, and allow the regulator to compare performance levels between companies.
60. Ofwat requires each WaSC (and water only company) in England and Wales to appoint an independent professional, known as the Reporter, to examine, test, and give his opinion on this information. Reporters work closely with their companies during the development of their regulatory information submissions.
61. Any additional assets transferred to WaSCs will be monitored in the same way as the rest of the public network, but data will be collated and reported to Ofwat separately to reconcile funding with output measures and levels of service delivered. The rate of blockages per km is anticipated to be significantly higher in the assets transferring than the current rate for public sewers.
62. Ofwat checks that companies are meeting the outputs assumed in the price limits that have been set. Ongoing monitoring allows it to take early action if needed.

### Enforcement

63. The enforcement authorities for legislation governing the water industry are the Secretary of State for Environment, Food and Rural Affairs, the Welsh Ministers and Ofwat. Different parts of legislation are enforced by different authorities, but most enforcement is delegated to Ofwat. The Secretary of State for Environment, Food and Rural Affairs or the Welsh Ministers are empowered to make regulations providing for them to make schemes for the adoption of private sewers.<sup>32</sup> Those regulations may require WaSCs to submit draft schemes to the Secretary of State or the Welsh Ministers for their approval. The details of how WaSCs are required to adopt existing and new private sewers will be included in the regulations, which will be enforceable by the Secretary of State or the Welsh Ministers under section 18 of the Water Industry Act (1991).
64. If the Secretary of State or the Welsh Ministers are satisfied that a company has contravened, or is likely to contravene, any of its duties under section 105A of the Water Industry Act 1991, they have a duty to make an enforcement order under section 18 of that Act requiring the company to put matters right.
65. Compliance and further enforcement duties will fall within Ofwat's existing role. As the independent economic regulator of the water industry, Ofwat's responsibilities include the enforcement of conditions imposed on the companies by their licence agreements, issuing Enforcement Orders on companies in breach of those terms, and monitoring their activities and performance on an ongoing basis. Ofwat enforce WaSC duties under s94 of the Water Industry Act 1991 to provide and maintain sewerage systems. Post-transfer these regulatory duties will apply to a larger sewerage network, estimated to increase by 68% and Ofwat will be required to monitor transferred assets separately from those already owned by WaSCs at the time of transfer.

### Sanctions

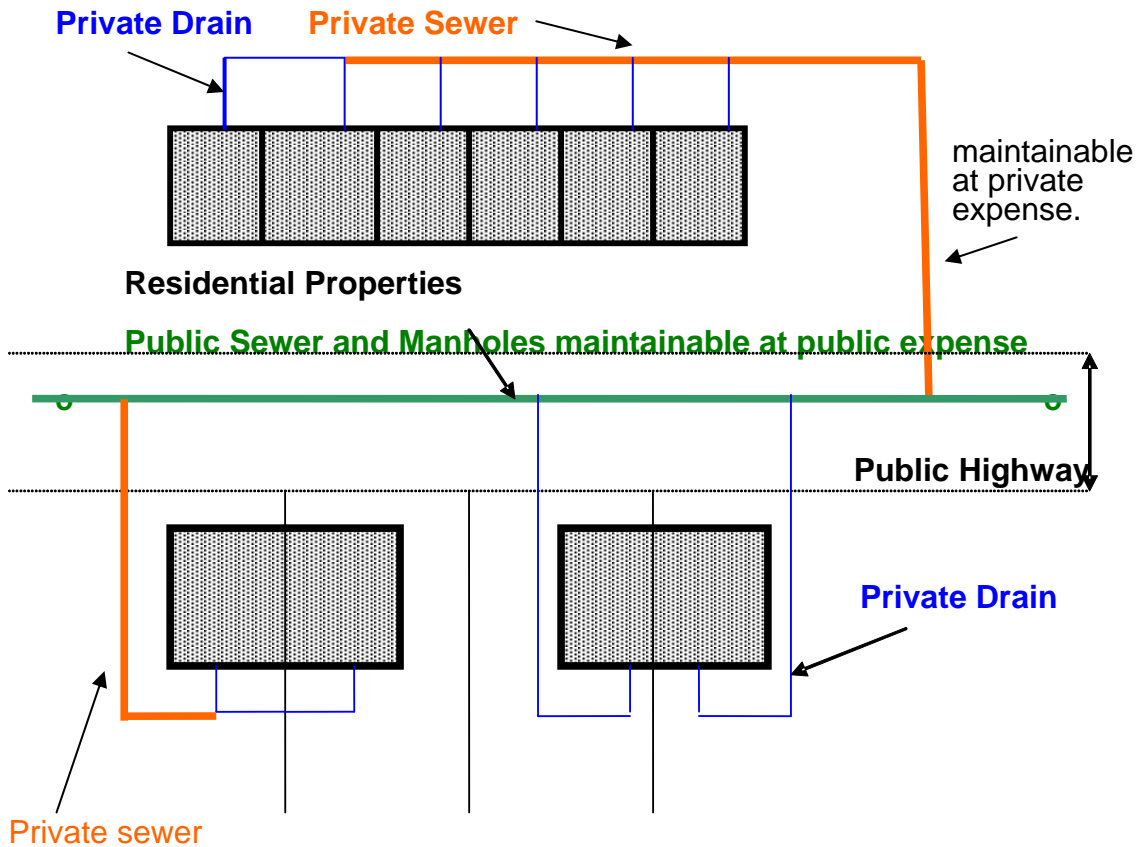
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<sup>32</sup> The Water Act 2003 amended the Water Industry Act 1991 to include this enabling power under section 105A(1).

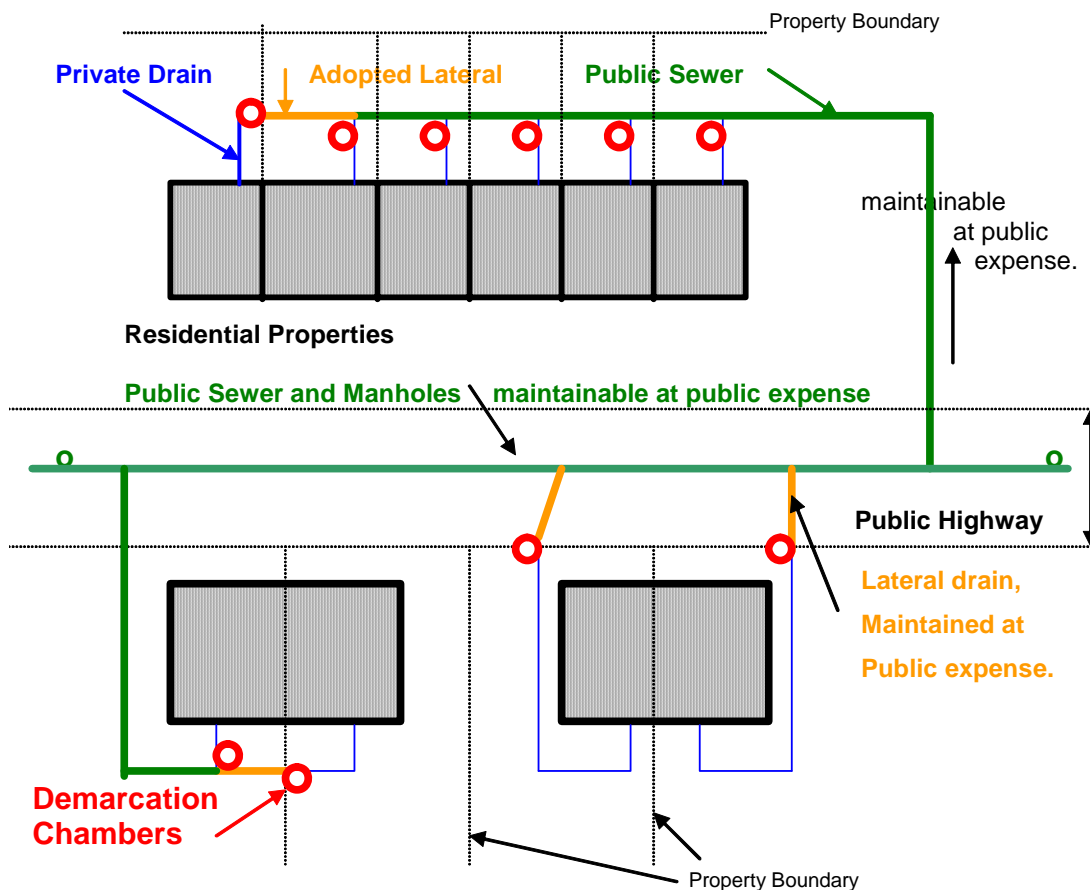
66. Transfer will mean that WaSCs' performance in relation to all newly acquired assets will be subject to the regime of sanctions currently at the disposal of the enforcement authorities (the Secretary of State for Environment, Food and Rural Affairs, the Welsh Ministers and Ofwat). Since April 2005 each enforcement authority has been able to impose financial penalties of up to 10 per cent of turnover where a company contravenes its licence or appointment conditions, or fails to meet required standards in performing its duties.

## **Annex E - Typical sewerage layouts**

### *Example of Existing Arrangements*



### Example of Future Arrangements for New Properties



## **Annex F - Competition Assessment**

1. As part of the RIA that informed the Government's decision to transfer existing private sewers and laterals to WaSCs, a Competition Assessment was conducted to assess the potential impact of transfer on competition within relevant industries.

### Competition filter

2. The transfer of private sewers and laterals to WaSCs has been analysed to understand the likely effects on competition in the water and sewerage industry. Although WaSCs will be affected by a transfer, they do not require the application of a competition filter due to the industry's structure as a number of statutory regional monopolies.
3. For comparison, the structure of the water industry in Scotland is different. The Water Industry (Scotland) Act 2002 created one Government-owned company called Scottish Water. This gave the Scottish water industry more ability to compete in the growing market for single-contract services to customers both domestic and abroad; to improve customer services; and to correct cost inefficiencies.<sup>33</sup>
4. Ofwat is the statutory, independent economic regulator of the water industry in England. Its role includes setting price limits for water and sewerage services in England and Wales. Ofwat is also a competition regulator under the Competition Act 1998 and has a

<sup>33</sup> Although it remains a public utility with objectives set by Ministers, Scottish Water is run as a business. It is funded through water charges (70%) and government borrowing (30%). The utility has to make a rate of return as there are no grants or free money available. Any profits which are made are recycled as investment or to support lower rates of borrowing.

primary duty under the Water Industry Act 1991 to promote competition where it is in the interests of consumers.

5. The Government has commissioned Professor Martin Cave to carry out a review of competition and innovation in water markets [*press release - <http://www.defra.gov.uk/news/2008/080228c.htm>*]. Professor Cave is in particular looking at how extending competition in water and sewerage services could benefit customers, particularly vulnerable customers. While the Cave Review will not be specifically focussing on the transfer of private sewers, it will consider issues that may be relevant to the delivery of sewerage services to customers.

### Drain Repair Industry

6. Drain repair businesses will be affected by a transfer of private sewers and laterals to WaSCs and therefore the competition filter has been applied to this market in England and Wales. The majority of businesses are small businesses serving local communities that are operating with fewer than five members of staff, and lack representation by a single industry body.
7. Drain repair businesses currently offer services on privately-owned pipework both inside and outside a property's curtilage. They charge the owners of the pipes for each job undertaken. Where pipes are in public ownership any maintenance and repair is managed by WaSCs who charge all customers annually for water and sewerage services, including the maintenance and repair of the public sewerage network.
8. It is estimated that the total amount of private drainage is 428,000km both inside and outside the curtilage. Under transfer up to approximately 52% of privately owned infrastructure will be taken over by WaSCs from individual property owners. This figure relates to those sections of privately-owned pipework that extend beyond the property curtilage. This will increase the overall network for which WaSCs are responsible by approximately 68%. Depending on how WaSCs undertake the repair and maintenance of these assets – whether through existing contracts for drainage repair or new contracts with drain repair companies – the transfer may reduce the amount of work available to drain repair businesses under direct agreement with the property owner.
9. Although it is envisaged by Water UK that drain repair businesses could be used as sub-contractors by WaSC contractors post-transfer, the smaller firms in the industry might struggle to meet WaSC requirements when seeking work directly with them on a contract basis. In this respect the market structure could change; some smaller firms may go out of business or be subject to takeover by larger firms. The extent to which such changes may happen would depend on a number of factors, such as the percentage of work currently undertaken by drain repair businesses outside the property curtilage.
10. For businesses attempting to enter the market, a transfer could lead to high set-up costs if, for example, WaSCs required businesses seeking contracts with them to meet certain standards or undergo specialised training. A transfer will not lead to higher on-going costs for *new* businesses than apply to *existing* businesses.
11. While working methods are updated regularly the drain repair market is not subject to rapid technological change.
12. A transfer would result in the market for drain repair work outside the property curtilage changing from individuals procuring the services of drain repair businesses to WaSCs organising the work. Drain repair businesses could however seek contract work from WaSCs. However over time, in total, we estimate that there will be upwards of 500,000 fewer blockages and call outs as the network quality improves.

13. A transfer will not restrict the ability of drain repair businesses to choose the price, quality, range or location of their services for the remaining private drainage network – that part of the privately-owned pipework that lies within the property curtilage or does not drain to a public sewer.

### Conclusions

14. The filter suggests that a transfer to WaSCs could have an effect on competition, therefore a more detailed analysis has been undertaken.

### Current Market

15. We estimate that there are between 1,600 – 2,000 drainage businesses in England and Wales. A leading drain clearance and maintenance business operating nationwide through a network of 76 licensed franchises has previously estimated that it had around a 12 per cent share of the drain clearance market. By its own account this group currently carries out around 6,500 jobs per week relating to the cleaning, surveying and repair of the drainage system.

16. Drain repair businesses operate both inside and outside the property curtilage. The total amount of drainage currently in private ownership is estimated to be 428,000km, approximately 207,000km of which would remain in private ownership after transfer because it is within the curtilage. The entirely private network (i.e. not connecting to the public network in any form) will not be affected by transfer.

17. As part of the Small Firms Impact Test (annex C), 145 calls were made to companies in England and Wales listed as 'Drain and Sewer Repair' and 'Pipework Contractors'. Of these, 23 agreed to answer questions. It is difficult to extrapolate from their responses how much work is undertaken outside the curtilage, since answers on this question ranged from 10 per cent to 90 per cent, but from recent research undertaken by one WaSC, we think it is reasonable to suggest that around sixty per cent of work might be undertaken within the curtilage by small and micro businesses.

18. The drain repair industry is an unregulated competitive market within which firms vie for the business of individual households. WaSCs generally do not undertake work on private sewers and drains as they are not responsible for problems occurring on them. In some cases, WaSCs may recommend reputable drain repair contractors to households where drainage problems exist. Property owners are free to choose their supplier or even carry out the repairs themselves.

19. Some WaSCs have associates within their group who offer drainage services. Condition F of WaSCs' instruments of appointment requires that all transactions with associate companies be carried out at arm's length, so as to ensure that there is no cross-subsidy between the regulated and associate business. The requirements of this condition are enforceable by Ofwat, which has a duty to ensure that the regulated water and sewerage business complies with its conditions of appointments.

20. Using information available to customers, prices for emergency drain clearance appear to range from around £100 to £280 depending on the time of day. In addition there are usually various surcharges for weekends and public holidays.

### Related Markets - Insurance

21. Some property owners may be able to claim for the cost of repairs to private sewers on their insurance policy. Insurers usually only provide cover for accidental damage and not

wear and tear. Insurance companies may require that work is undertaken by reputable drain repair companies.

22. A number of companies offer specialist policies covering domestic plumbing and drainage problems such as burst water pipes, leaking water cylinders and collapsed and blocked drains. Some WaSCs use their name and reputation to offer these specialist policies to their customers on behalf of third party insurance companies.
23. The annual cost of insurance claims for private sewers and drains (including building drainage) has been previously estimated at around £109 million, with a further £45m p.a. for claims for flats and housing associations and for handling costs. Of this, it is estimated that private sewers account for 20 per cent of repair costs, and laterals may account for a further 4% (proportionate to their km) giving a figure of around £37 million in 2002 prices.
24. Defra has consulted with the insurance industry's Property Claims Forum (PCF) in order to gain a better understanding of how a transfer might affect competition in the insurance industry. The PCF members are: Cornhill, CIS, Legal and General, Halifax, AXA, Lloyds TSB, Royal Bank of Scotland, Zurich, and Royal & Sun Alliance.
25. Drawing on information provided by the PCF it is estimated that the top five insurance companies hold 60 per cent of the insurance market, with three of these companies holding over 10 per cent of the market each.
26. The PCF does not believe that any costs associated with a transfer would affect some firms more than others. Insurance cover offered for drains and sewers is typical across the market. Insurers tend to deal with such claims in a standard fashion both in terms of repairs and administration.
27. The PCF also believes that a transfer of ownership will have a negligible effect on the industry generally, and will have no effect in terms of relative competition.
28. According to the PCF, a transfer will not lead to higher set up costs for new firms attempting to enter the market since drain or sewer claims are insignificant both in terms of the cover offered by insurers under buildings policies and costs to insurers.
29. Furthermore, the PCF argues that a transfer will not lead to higher ongoing costs for new firms since they would be competing on a level playing field.
30. The insurance industry is not characterised by rapid technological change, and a transfer will not affect the ability of firms to choose the price, quality, range or location of their products.
31. Insurance providers could potentially achieve a higher take-up of their policies if more private sewer owners were aware of their responsibilities and the cover offered by insurers. It is also possible that the insurance market could develop new products to cater for increasing awareness and the consequent desire of consumers to mitigate the risks of private sewer ownership.

### Conclusions

32. The filter suggests that a transfer to WaSCs will not have a significant effect on competition in the insurance industry.

### Effect On Market

33. A transfer of all private sewers and laterals into the ownership of WaSCs will amount to an estimated 52 per cent of the current private network being removed from the responsibilities of private sewer owners.
34. Householders will retain responsibility for pipes within the curtilage of properties. An estimated 207,000km of private drainage will be retained in private ownership. Householders will choose suitable firms to undertake any repair or maintenance work on these pipes, as is currently the case. The existing private network that does not drain to the public network will not be transferred to WaSCs.
35. WaSCs currently manage approximately 323,000km of public sewers; transferring private sewers and laterals would increase their asset base by approximately 68 per cent.
36. Under transfer, the market for drainage services will change; householders will become responsible for a smaller part of the network while WaSCs will become responsible for a larger proportion. For work within the curtilage, property owners will be free, as they are now, to choose a supplier. For the part of the network transferred to WaSCs, it will be for each WaSC to determine how it will procure drain repair work. Some WaSCs have indicated that they would use smaller contractors to undertake work on the private sewers and drains transferred.
37. The target customers for drain repair companies will proportionally shift from home owners/occupiers to WaSCs.

#### *Inset Appointments*

38. Inset appointments are a process by which an appointment as a statutory undertaker may be made. An inset appointee has the same statutory responsibilities as are placed on all statutory WaSCs by legislation. Any activity, such as drain clearance or repair performed on private sewers or laterals would be done, not as part of their undertaking, but as a private company in competition with other repair operatives.
39. A transfer of private sewers and laterals is unlikely to have any significant effect on the inset appointments process. Any company appointed by this method would be treated in the same way as incumbent statutory undertakers – i.e. the WaSCs.

#### *Effect On Market Structure*

40. During the Defra seminar held in January 2005, some representatives of the drain repair industry commented that a transfer could provide an opportunity to take on more work from the WaSCs. It was felt that the WaSCs may not be able to handle a sudden increase in work and that the drain repair market could benefit from this.
41. Equally, representations have been made by organisations who feel that WaSCs may wish to retain their current contractors, creating fewer opportunities for other businesses. Although an increase in workload for those contractors could have the knock-on effect of creating new labour demands.

#### *Related Markets*

42. Some stakeholders expressed concern that a number of drain repair businesses might be trading without sufficient technical expertise. A transfer could encourage more contractors to undertake relevant training as required by the WaSCs. This in turn could provide opportunities for organisations offering training, to gain extra business.

43. A transfer could also mean a reduction in the number of insurance claims relating to private sewers and laterals, allowing insurance companies to redefine the scope of cover provided. These changes could, over time, be reflected in the cost of insurance to property owners.

#### Barriers to Entry

44. Not all businesses may be able to meet the requirements of WaSCs, which could lead to smaller companies either going out of business or merging with larger companies. It could also make starting up a drain repair business more challenging.

#### Customer Choice

45. Customer choice on drains within their curtilage will remain. A transfer to WaSCs would reduce the risk of private sewer owners paying costs in the region of £100 - £280 for emergency drain repair clearance outside the curtilage of their property or for work on sewers inside or outside their curtilage. Instead, WaSC customers will pay an estimated increase of approximately £4 to £12, depending on WaSC region, in their annual water and sewerage bill to cover the costs of transfer.

#### Differential Effects on Firms

46. Smaller firms may be less able to respond to a change in the market since it is unlikely that they have the same level of business infrastructure and support as larger firms.

#### Conclusion

47. A transfer of private sewer ownership is likely to change the current market structure in the drain repair industry insofar as the customers for drain repair services will cease to be private sewer owners and will become WaSCs. Possible impacts on competition in the drain repair industry include:

- Approximately 52 per cent of the sewerage and drainage network currently in private ownership that connects to the public system will be transferred to WaSCs under an automatic overnight transfer;
- The amount of work available to drain repair companies directly from the householder is likely to decrease;
- It is highly likely that WaSCs will need to contract out some of the extra work to the drain repair industry;
- Competition for contract work from WaSCs could increase, which could improve standards of training and workmanship;
- Some smaller businesses may be less able to compete and could cease trading or merge with other companies;
- No reduction in the level of employment within the market is anticipated in the short to medium term, though as noted earlier, over time, in total, we estimate that there will be upwards of 500,000 fewer blockages and call outs as the network quality improves.

## **Annex G - Small Firms Impact Test**

1. This Small Firms Impact Test (SFIT) has been updated to reflect developments since the last SFIT to accompany the July 2007 consultation on implementation options. The small firms most likely to be affected by a transfer of private sewers and laterals are those in the drain repair and maintenance industry. Currently these firms perform maintenance and repair work to private sewerage and drainage, 52 per cent of which would become vested in WaSCs post-transfer. The remaining 48 per cent we estimate comprises around 60 per cent of small business work in the sector (see paragraph 17).
2. This SFIT has been completed with the assistance of the Enterprise Directorate at the Department for Business Enterprise and Regulatory Reform BERR who have confirmed that they are satisfied the concerns of the small business sector have been taken into account.
3. In 2007 the insurance industry Drainage Forum estimated the value of the drainage repair industry to be at least £272 million per annum. This market is shared between an estimated 1,600-2,000 firms operating throughout England and Wales. Our research found that the industry is fragmented, with inconsistent working practices and with no single representative trade body. We estimate that no single company controls significantly more than around 15 per cent of the market. The sector is largely based on a micro or small business structure – roughly 90% are small businesses employing under 20 people and about 40% are micro-businesses, employing 5 people or less. A significant proportion of the businesses are operated on a franchisee basis.
4. These small businesses tend to be ‘small bore specialists’ operating cleaning, surveying and repair services primarily within and around the curtilage of a property. The proposed changes to this policy will ensure certainty for business and property owners in that drains within the curtilage will remain the responsibility of the householder if ownership of private sewers and lateral drains is transferred to WaSCs, leaving this section of the market unaffected.
5. Most of the small businesses canvassed as part of the development of the 2007 SFIT perceived transfer of ownership as more of a threat than an opportunity and that that micro businesses in particular may not have the opportunity or ability to develop and expand or diversify their operation. Anecdotally however, the telephone calls from independent drainage contractors enquiring about transfer have in the majority acknowledged that the proposed transfer to WaSCs is the right policy option.
6. Two particular concerns were expressed by small businesses. One was a potential liability issue perceived to arise if rodding or jetting caused downstream damage to weak laterals which, post-transfer, will be owned by WaSCs rather than householders. The other perceived concern was that householders will contact the WaSC in the first instance, whatever the blockage. If a WaSC’s contractor attended but determined that the blockage lay within the curtilage of a property, the contractor might nonetheless offer to deal with the problem (privately) as he was already in attendance (see also Table 1, below). It was perceived that this would result in loss of business for those drainage contractors not engaged by the WaSCs.
7. Six specific responses were received from private drainage contractors (PDCs) to the consultation on *Private Sewers Transfer – Implementation Options* (July 2007), in addition to 68 letters from Dyno-Rod franchisees in support of the Dyno Group response.
8. Specific points arising from these responses included:

- Drainage companies supported a longer period (10 years or more) for phasing of transfer to allow both WaSCs and drainage contractors to adapt to new responsibilities and the change in the market.
  - Unlike other respondents, drainage companies were not generally supportive of automatic overnight transfer, instead favouring “Automatic phased” or transfer “on application”. Phasing over more time, or by application would allow time for drainage contractors to diversify their trade.
  - Dyno-Group suggested that phasing based on asset type, whereby private sewers would be transferred initially and laterals would be transferred at a later date.
  - Some responses highlighted job losses as a consequence whereas others believed that the same amount of work will need to be carried out post-transfer and that the remaining domestic drainage work may be sufficient to support small contractors, i.e. it represents a shift in the way the work is done but the overall quantity will remain very similar and may, indeed, increase in the short to medium term. While this may be true for CCTV work for instance, we must acknowledge that over time, in total, we estimate that there will be upwards of 500,000 fewer blockages and call outs as the network quality improves.
9. Many of the micro-businesses in this sector appeared unaware of the proposed transfer or did not fully recognise the impact it could have on them. The telephone survey of small and micro-businesses carried out for the first SFIT <http://www.defra.gov.uk/environment/water/industry/sewers/existing/pdf/sewers-drains-ria.pdf> indicated that those firms deriving over 50 per cent of their work from outside the curtilage, tend to employ over 5 staff. Those firms whose work is concentrated mainly within the curtilage tended to be the micro-businesses (5 staff or fewer).
10. The survey also suggested that businesses employing between 1 and 10 people view a transfer of ownership as a threat to their business or operating practices, albeit noting that work within the curtilage will remain. The larger businesses, employing between 20 and 50 people, believe a transfer could present a challenge but also the opportunity to work on substantial contracts for WaSCs, thereby providing continuity of workload and a stable income stream.
11. Detailed analysis of the private drainage market within one WaSC area has helped identify the nature of contractor activity in this sector. 125 local companies spread throughout the WaSC region were contacted, of whom 86 supplied information regarding company size, location, geographical area served, resource base, type of work undertaken and levels of activity.
12. Levels of activity were difficult to judge, mainly due to the reactive nature of the business and the fact that details of individual jobs are generally not adequately quantified and recorded to allow meaningful analysis to be done, particularly in the case of the micro-businesses undertaking non-insurance company backed work. Furthermore some companies view the market data as sensitive. The analysis suggested that about 60 per cent of PDC work was carried out inside the property boundary.
13. In terms of manpower and vehicles used for blockage clearance and drainage maintenance, the private drainage sector was found to have roughly 5-7 times the resource of the local WaSC. Even allowing for efficiencies and economies of scale under WaSC management, this gives some indication of the expansion in resource required by WaSCs following transfer; this is expected to be met in large part by engagement of contractors by the WaSCs, at least in the short to medium term. Individual WaSC

strategies regarding out-sourcing will vary initially and will evolve as the workload becomes better established through recording and analysis of individual jobs.

14. Most, if not all, WaSCs already use local drainage contractors to carry out a significant amount of operational work, in particular to deal with peaks in demand, in order to meet customer response targets during times of wet-weather when the WaSCs own crews are stretched. Small and medium-sized contractors are also widely used for specialist drainage work such as mapping, CCTV survey and pipeline renovation.
15. Transfer will greatly increase the base-load of work done by WaSCs and will inevitably require greater involvement of Private Drainage Contractors (PDCs) in managing this.
16. Analysis of workload in the one WaSC area has suggested that the annual operational expenditure on private drainage breaks down roughly as follows:
  - Blockage clearance on private sewers (37%);
  - Blockage clearance on laterals and at interceptors (27%),
  - Dealing with flooding due to blockages (13%);
  - Proactive cleaning (8%);
  - Tree root removal (10%);
17. A “forward look” analysis of capital maintenance expenditure by the same WaSC has confirmed that there will be growth in some areas of activity and that there is significant scope for small drainage businesses to diversify into these areas or provide personnel and support services to larger specialist companies. These activities include:
  - Sewer survey and mapping
  - whilst universal mapping of former private assets is not anticipated, WaSCs typically expect to carry out proactive survey of up to 20% of formerly private sewers in “problem hotspot” areas within the 10 years following transfer);
  - CCTV survey;
  - Manhole and inspection chamber repair;
  - Interceptor removal;
  - Pipe renovation & repair (it has been estimated that 7% of private sewers will require repair) and
  - Construction of demarcation / access chambers.
  - Survey of pumping station condition (ahead of future transfer of these assets)
    - we envisage that small businesses already engaged in these activity areas should see a net increase in workload and most will benefit from transfer, particularly if they proactively start to form partnerships with WaSCs. Defra’s ongoing intention is to give this sector significant notice of the change, thereby giving business, but especially small businesses, enough time to prepare.
18. Feedback from Water UK on the concerns expressed by small businesses suggests that WaSCs envisage their current contractors would not have sufficient manpower to meet the additional workload post-transfer, at least in the short and medium term and would have to sub-contract a significant proportion of this work to existing small drain repair firms, who have the requisite equipment and expertise. However, one trade association expressed concern that the procurement procedure will be price driven and some well qualified businesses may not be thought sufficiently competitive.
19. Key stakeholders within the drainage maintenance and repair industry have been involved recently in the review of private sewers transfer. Defra’s stakeholder steering group has specifically considered the impact of transfer on small businesses assisted by the National Sewerage Association, the Society for British Water and Wastewater Industries (SBWWI) and the Federation of Small Businesses.

20. They have have provided valuable insight and advice regarding issues such as:
- The need for a suitable lead-in period required between announcement of transfer and the transfer itself in order to allow the market to prepare and adjust
  - Development of a protocol for dealing with blockages and defects in lateral drains and private sewers.
  - Requirements of a communications strategy aimed both at customers and at PDCs.

21. The table below illustrates possible outcomes and scenarios for private drainage contractors working in partnership with the Water Companies when they respond to calls initiated by customers. This highlights the important role that private drainage contractors will continue to have in the future, whether working independently or as a contractor to a Water Company

*Table 10: Possible Scenarios for Water & Sewerage Companies and Private Drainage Contractors working together*

<b>Scenario</b>	<b>Initial customer contact to:</b>	<b>Work scheduled to:</b>	<b>Asset diagnosed on site as :</b>	<b>Options</b>	<b>Consequences</b>
1	WaSC CSU	WaSC crew	Public	Problem sorted FoC - WaSC asset	Problem is recorded by WaSC on corporate GIS, allowing subsequent analysis of problem "hotspots" WaSC follow up with survey team to map assets
2	WaSC CSU	WaSC crew	Private	Customer either a) chooses WaSC to sort out problem or b) calls PDC	a) WaSC covers incurred costs and earns unregulated income b) WaSC incurs cost of attendance without recovering costs
3	WaSC CSU	PDC on contract to WaSC	Public	Problem sorted FoC – WaSC asset	PDC paid on a day rate basis. Problem is recorded by WaSC on corporate GIS, WaSC follow up with survey team to map assets
4	WaSC CSU	PDC on contract to WaSC	Private	Customer chooses either a) WaSC (via PDC) to sort out problem or b) calls alternative PDC	a) PDC paid on a day rate basis. Charges WaSC rates and passes on payment to WaSC. b) Unlikely. However, PDC will need managing to ensure they don't charge customer and report back as 'public' problem. Good follow up survey work should identify false information.

5	PDC	PDC operating privately	Public	PDC either a) calls WaSC to sort out problem or b) sorts problem and recharges WaSC	a) unlikely scenario - PDC loses out on revenue b) requires WaSC follow up to ensure PDC is not double charging (WaSC and customer). WaSC also needs to survey assets if unmapped. This will act as a good check.
6	PDC	PDC operating privately	Private	PDC carries out work and charges customer	WaSC does not have the opportunity to gain the asset information

Key:

WaSC – Water and Sewerage Company  
 CSU – Customer Services Unit (WaSC call centre)  
 PDC – Private Drainage Contractor  
 FoC – Free of Charge

Steps to help small businesses

22. An issue of concern to small businesses operating in this sector is training and accreditation in order to meet the requirements of WaSCs in order to operate in partnership with them.
23. Energy and Utility Skills – under licence to the Dept. for Education and Skills – has worked with the sewerage industry to identify National Occupational Standards in a Sewerage Maintenance Standards project, and currently offers National Vocational Qualifications covering sewer maintenance. WaSCs support the project and small businesses who obtain the qualification are likely to make themselves more attractive as sub-contractors.
24. A drainage operatives registration scheme is under development by Energy and Utility Skills and this provides a means to demonstrate competency through training and experience. This will provide a framework and registration scheme which will give confidence to asset owners and domestic customers alike, that the work will be carried out safely and competently.
25. Transfer will also create new opportunities and open new markets for other small businesses involved in training, health and safety audit, scheduling and account management.
26. Transfer will be brought into force with significant lead-in time and to a common commencement date in the spring of the selected year, as we recognise that autumn can be a busy time for drainage clearance.
27. No licences or other stringent new measures or processes for small businesses are being introduced with transfer. There will be no added administrative regulatory burden that small businesses will need to comply with.
28. Transfer will bring clarity on what is and is not a householder's responsibility for drainage. The market will be clearly defined.

29. In summary, it is expected that the amount of work in maintaining and repairing currently private drainage will remain roughly constant, although it will decline in the longer term and there will inevitably be a change in the market focus for private drainage contractors operating in this sector, who may wish to enter into arrangements with Water Companies or their sub-contractors. Drainage within the property boundary will remain the responsibility of the householder and repair and maintenance work associated with these will continue to exist.

### **Annex H - note on Separate Impact Assessments**

1. A competition assessment is included at annex B.
2. A small firms impact test is included at annex C.
3. We do not anticipate any changes in the overall level of greenhouse gas emissions. Though it is possible they may slightly increase in the short period of capital programme expenditure they are expected to decrease over time as fewer blockages are attended to.
4. There are no legal aid implications that we are aware of.
5. The recommendations comply with Sustainable Development Principles.
6. The recommendations do not have direct health impacts but will contribute to better management of the wider sewerage system in the longer term which is expected to reduce potential instances of pollution.
7. The recommendations have no implications for Race, Gender or Disability Equality that we have been able to find.
8. The recommendations apply wherever there is a connection to the public sewer. Those not connected to the public system do not pay an annual sewerage bill to a WaSC. Therefore the recommendations will not have a different impact in rural areas.
9. Human Rights – see paragraph 68 in body of IA

### **Annex I – note on wider context**

- Sir Michael Pitt's independent review, Learning lessons from the 2007 floods (June 2008) "welcomed" the Government's February 2007 announcement on transfer, and stated that transfer would "clarify institutional responsibilities".
- The Government has commissioned two major reviews of the water industry: the Cave review of competition and innovation in water markets and the Walker review of charging and metering. At time of writing, we understand that it is unlikely that either review will produce any recommendations that will significantly impact on the proposal to transfer private sewers. Both reviews are aware of transfer and will continue to be kept informed of progress on its implementation.
- In 'Setting price limits for 2010-15: Business plan information requirements – responses to the consultation', April 2008, Ofwat stated that they were unlikely to be able to make specific provision for the costs of transfer in 2009 price limits as the details of transfer had not then been finalised. When transfer becomes an obligation for WaSCs in April 2011 Ofwat will use the AMP5 change protocol procedure to take account of the costs of the new obligations. Under this protocol though the bill impact may take place in the following billing year, it is likely that the bill impact will be deferred to the next price review period, 2015 -2020.