

**Review of Existing Private Sewers and Drains in England and Wales. May 2003.**

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**Introduction**

“The truth is that the whole of our sanitary legislation is in a state which I hardly like to characterise in the language that naturally suggests itself; and the attempt to extract from the various details of the legislation a set of harmonious principles, always underlying the specific provisions, is, I am afraid, futile.”

- The late Mr Justice Wills, 1896.

The question is, has anything changed?

The last review of existing sewerage was undertaken in 1986, and was concerned principally with modernising the water and sewerage laws in preparation for privatisation of the water industry. Amongst other things it led to the decision of not transferring the responsibilities for private sewers to the sewerage undertakers. It was perhaps not as wide-ranging as the review that is discussed in this paper.

Over the last ten years the government has received increasing amounts of correspondence about sewerage problems. However, most of these have been from those who had difficulties with their private sewers. For example, many people have written about cases where they are jointly responsible with several of their neighbours for the cost of repairs to their shared private sewers. But who organises the repairs? Who pays? And what proportion of the cost does each party pay?

From time to time there have also been delegations (particularly from local authorities) to government ministers to plead the cases of property owners who are struggling to get their existing private sewers adopted by the sewerage undertakers. They find themselves unable to pay the significant cost of remedial work necessary to bring their systems up to adoptable standard.

It was obvious that something had to be done. So, in the late 1990's, the government embarked on a review of private sewers and drains in England and Wales. This is being carried out as two separate exercises: firstly a review of the provision of new private sewers and drains; then a review of the legacy of existing private sewers and drains.

The government's proposals for the construction of new private sewers and drains were set out in a consultation paper published in 2000. Amongst its recommendations was the proposal that all new sewers and drains should be built to the same standard, to enable a larger proportion of new pipework to be formally adopted by sewerage undertakers. As a result, a Protocol on Design Construction and Adoption of Sewers in England and Wales, endorsed by all relevant parties, was issued and changes were incorporated into the new building regulations which came into force in April 2002. We are monitoring the situation to see how they work.

The second stage has addressed existing private sewers. WS Atkins has been appointed by the Department for Environment, Food and Rural Affairs (Defra) and the Welsh Assembly Government to undertake a research contract to review the extent and consider problems associated with existing private sewers and drains in England and Wales, particularly with regard to their ownership and maintenance, and to formulate workable and sustainable solutions to address these problems.

## **Methodology**

This research was concerned principally with problems associated with household drainage, but also included non-domestic premises. Conventional private surface water sewerage and drainage were included, but land drainage and issues relating to open watercourses were excluded. This paper summarises some of the research undertaken by WS Atkins, which included:

- Reviewing the existing legislation and policies relating to drainage.
- Carrying out questionnaire surveys amongst local authorities and sewerage undertakers throughout England and Wales.
- Discussions with staff from other organisations, including OFWAT, the Environment Agency, insurance companies, housing associations and reviewing information from the English House Condition Survey (EHCS).
- Investigation of specific case studies across England and Wales.
- Developing solutions which potentially could be applied across England and Wales, including an assessment of potential costs.
- Consideration of the impact of the possible options on those involved with sewerage matters and the environment.

## **Extent of Private Sewers**

In order to estimate the extent of private sewers in England and Wales and the scale of the problems experienced, a total of 430 questionnaires were issued. They were sent to every local authority, to every sewerage undertaker, to a selection of housing associations and to various other organisations with an interest in private sewers or drains.

Of course, the fact that the sewers are private means that there is less reason for any public body to keep records on them. Also, removal of sewerage agencies from local authorities means that much of the local knowledge and resources that existed previously are no longer available. Many respondents did not have all of the information needed to complete the questionnaire, or had varying degrees of confidence in their replies. This was dealt with by including a systematic way to indicate the level of confidence that they had in the responses to each individual question. The responses were also verified through a targeted validation exercise with 40 of the local authorities.

A total of 37% of local authorities returned questionnaires. Most of the sewerage undertakers returned their questionnaires. Several housing associations returned questionnaires but most indicated that they relied on their local authorities for all sewerage information.

The information obtained, including confidence factors, was cross-referenced with data from the latest English House Condition Survey, OFWAT statistics and information from the insurance industry. The EHCS data was based on a survey of more than 17,000 households and the OFWAT data represents audited graded data, so both can be considered to be relatively reliable within the confidence limits given.

The research found that England and Wales has between 80,000km and 200,000km of private sewers and lateral drains which discharge to public sewers. Nearly half of all domestic properties were served by private sewers or lateral drains. Of these, 10% were connected to private storage or treatment facilities. In these cases, property owners generally had a reasonable awareness of their obligations. The remaining 90% were served by private pipes which connect to public sewers, and awareness of the legal situation amongst property owners was generally very poor.

It was found that most private sewers serve private housing and that the likelihood of faults increases (unsurprisingly) with the age of the property. The data also indicates that the use of non-mains drainage reduced between 1945 and 1990, but has increased again recently. Little information was received about other sewerage assets such as private pumping stations and treatment works. However, EA consent data indicates that there are at least 3,250 private sewage treatment works.

### **Typical problems**

Correspondence from Members of Parliament, members of the public, residents groups and housing associations indicates that there is a general lack of awareness of ownership of private sewers and drains, and responsibilities for maintaining them. During the research 40 case studies were investigated. Problems found included:

- The difficulties of establishing the ownership of assets and responsibilities for maintaining shared private sewers.
- The difficulties arising from a lack of manageable and easily enforceable procedures for maintaining shared private sewers.
- The unwillingness of some property owners to accept their responsibilities (especially after change of ownership) with regard to maintaining their assets and the difficulty of requiring them to contribute towards the cost of repair to shared private sewers.
- Some property owners being unable to afford the high cost of repair to private sewers.
- The difficulty of getting private sewers adopted by the sewerage undertaker.
- Sewage flooding from private sewers.
- Whether it is right that property owners should be responsible for a 'lateral' drain or private sewer situated outside the curtilage of the property and the potential difficulties this poses, e.g. property owners have no control over the activities of other bodies such as utility companies or highway authorities working in the vicinity and possibly damaging these assets.
- The equity of sewerage charges imposed by the sewerage undertakers on those property owners served by private sewers which ultimately discharge into the public sewers.
- The problems associated with the lack of reliable and readily accessible records of private sewers.

- Anomalies in or omissions from sewerage undertakers' records of public sewers which might cause confusion about the status of those sewers.

### **The Extent of Problems**

The questionnaire sent to local authorities contained various sections on problems and issues that each authority might have experienced in dealing with private sewer and lateral drain issues. The responses provided less information than those sections dealing with the extent and length of private sewerage systems, and the analysis also showed that 'average' figures for some problems were heavily influenced by a few local authorities that reported very high numbers of incidents to certain problems. For example, there were large variations in the reported problems associated with pitch fibre pipes. This is, to a certain extent, to be expected, since pitch fibre is known to have been used throughout England and Wales, but because of the nature of the failure mechanisms of this pipe material, some areas may currently experience higher numbers of incidents relative to others.

The data was weighted by the number of properties in each local authority area, with the validity of extreme values assessed on a case by case basis. It is intended that a table, presenting the results extrapolated to national level across England and Wales, will be included in the forthcoming consultation paper. However, by way of indication, the study has found that:

- Local authorities record 108,000 reports of flooding from private sewers per year.
- Sewer ownership disputes affect 45,000 properties per year.
- Problems due to pitch fibre pipes currently affect 50,000 properties per year.

### **Possible Solutions**

Many of the problems associated with private sewers are caused by a lack of management and are exacerbated by a lack of awareness amongst property owners of the current legal position. However, even if greater awareness and better use of existing legislation could be used to resolve the perceived problems with private sewers, this may not be the most efficient and cost effective way to address them. Therefore, there is a need to also look at possible alternative solutions.

There are many possible solutions that could be proposed to improve the various problems identified, and the scope of each option could also vary significantly. The forthcoming Government Consultation Paper will describe the various options.

The possible overall solutions include transferring the ownership of private sewers to a sewerage undertaker or local authority or just transferring responsibility for the management. The consultation paper will set out the relative advantages and disadvantages of each solution. Clearly there are cost implications as some sewers are in poor condition. Many may require extensive work or replacement. But, this has to be weighed against better arrangements for the management of the sewers, and the peace of mind for householders.

A variation of these solutions may be only to transfer the ownership of the lateral drains to sewerage undertakers. This would complement the provisions in the Water Bill that require all new laterals connecting to a public sewer to be built to a standard that will enable them to be adopted on completion.

### **The Consultation Process**

The Consultation Paper is currently due to be published at the beginning of June 2003. It will seek views on strategic issues for dealing with the main problems as well as possible solutions for dealing with individual problems associated with private sewers and drains. Readers are encouraged to obtain a copy from Defra or access it via Defra's web-site. The paper includes an appendix containing a response form and responses are requested via 17 main questions. Each question can be answered with a simple Yes/No to each question or with supporting comments. We are keen to receive as many responses as possible from professionals dealing with these issues and responses can be sent by post or e-mail. The consultation period will last for 12 weeks and the research and recommendations will be finalised taking these responses into account in the autumn.

*Copies of the consultation paper will be available from Sarah Russell at Defra:  
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