Local Authority Pest Management is about more than just killing rats in drains.

It’s about protecting public health and improving degraded environments.

A special report from the Chartered Institute of Environmental Health.
The National Pest Advisory Panel (N-PAP) of the Chartered Institute of Environmental Health (CIEH) was set up to advise the CIEH on pest control policy. Its first meeting took place in May 2001.

The CIEH is a professional and educational body, dedicated to the promotion of environmental health and to encouraging the highest possible standards in the training and the work of environmental health professionals.

It is therefore part of its mission to ensure that pest management is undertaken or managed by its members in a professional way. The N-PAP also exists to enable the CIEH to provide the necessary leadership and guidance to those in charge of local authority pest control departments.

To achieve this, the CIEH seeks the widest possible participation of those involved in pest management in local authorities, government departments, academic institutions and industry.

Objectives
Its prime objectives are:

• To raise the profile of pest management in the UK, leading to better understanding of the need for good pest management.

• Establish channels of communication throughout industry, government, local authorities and academics, leading to a greater awareness of problems and the need for priorities.

• Improve the standards of pest management throughout the UK by promoting good practice, leading to reduced pest levels and pesticide use.

• Provide expert advice to government departments and agencies via CIEH.

• Identify and promote research needs into pest management issues.

Open forums are held around the country, to which anyone interested or involved in pest control is invited.

Annual forums are held each year in November at Coventry and occasional forums have been held in York and London. Further forums will be held throughout the UK as appropriate.

The full N-PAP meets and also operates through a series of working parties, which report back to the Panel.

Communication
Details of the activities of the N-PAP are regularly reported in the trade press. Significant developments are published on the CIEH web site.

A summary of the minutes of N-PAP meetings and interim bulletins are also available to e-mail subscribers.

Further details are available from the secretary David Oldbury at d.oldbury@notes.manchester.gov.uk.
When Sir Edwin Chadwick, the father of the public health movement and instigator of the 1848 Public Health Act, was leading his campaign for better public health in the middle of the nineteenth century, the main issues were poor sanitation, unsafe water, polluted air, bad housing and pest-borne disease.

Nowadays, the standards of sanitation, water and air quality in the UK have been improved beyond all recognition.

However, housing and pest management are still core public health problems, which need constant attention. In many instances, the problems of the nineteenth century have been replaced with the problems of the twenty-first.

CIEH believes that public pest management is a job more suited to local authorities than to private companies because pest management goes further than simple pest control. It includes managing the whole environment so that pests cannot thrive or even survive.

Communities can manage these environment programmes most effectively through their local authorities. This is especially true where ‘whole block’ treatments are required or where statutory powers of access are needed.

Local authorities should consider their pest management activities to be a fundamental part of their role to promote and protect public and environmental health by encouraging good living standards within their districts.

The CIEH Pest Management Survey 2003 has provided a great deal of important information on the structure of pest management in local authorities.

It has also raised a number of major concerns.

As a result, the Chartered Institute of Environmental Health recommends that:

- Public health pest management is recognised as a fundamental core activity of public and environmental health and the regeneration of inner city areas.
- Pest management be carried out by a specific department or section, which has the protection of public and environmental health as its primary concern.
- Local authorities consider whether their charging policies are having an adverse impact on the community and if they are disadvantaging the most vulnerable in society.
- Pest control managers, supervisors and operators should be recognised for their professionalism and skills. Their career progression should be based on a clear training structure and continuous professional development.
- All local authorities should make certain that quality control programmes are implemented to ensure that pest management is efficiently carried out, based on good scientific principles.
- There should be consistency of approach across the UK including minimum standards for contracts.
Why do we need to control pests?

The need to control pests is part of the 'precautionary principle' of good governance. It shifts the burden of proof from "how much harm is allowable" to "how little is possible". CIEH believes that this is the right basis for decisions on environmental health.

There are three main reasons why pests must be controlled. These are:

1. **Pests pose a range of health hazards.** They spread pest-borne illnesses, which reduce the quality of life for local residents and at the same time increase the demand on scarce medical resources. They also affect the prosperity of the community because a workforce suffering from pest-borne allergies or diseases cannot contribute to the social and economic well-being of the district.

2. **Pests cause damage to structures and contaminate products.** The danger from fires, floods etc., caused by rodent activity, is well documented. Such damage is often substantial. In addition, bird fouling can make pavements unsafe, resulting in significant claims for damages.

Food and medical supplies are rendered unsaleable or unusable when contaminated by either insect or rodent pests. Many prosecutions of food premises are due to poor pest control and contamination by droppings, etc.

3. **Pest infestations make urban areas undesirable and inhibit inward investment.** Poor housing, health and education together with social exclusion, a lack of business investment and job opportunities are common in areas where chronic pest infestations persist. Degraded environments discourage inward investment.

**Speed of contamination**

In the modern world, air travel and containerisation of freight provides opportunities for the rapid transfer of pests and their diseases from one part of the world to another. Nowadays, no one lives or works more than a few hours away from a major pest-borne disease epidemic.

For example, annually there are an estimated 50 - 100 million cases of dengue fever and 250,000 to 500,000 cases of dengue haemorrhagic fever in the world. It is thought that some 2,500 million people are now at risk from dengue and many of the areas at risk are popular tourist destinations.

The recent SARS outbreak is proof of how quickly disease can spread between countries and even continents. Journey times are often less than the incubation period of symptoms.

**Emerging diseases**

Some pest borne diseases and the conditions which cause them to spread, are relatively new. West Nile Virus - first arrived in New York City in 1999, since when it has spread rapidly throughout the USA. During 2002, 4008 cases were diagnosed and 263 people died from it.
Rising atmospheric CO₂ and climate change due to global warming will undoubtedly affect the distribution and proliferation of insects and the diseases they carry.

Several diseases could become more prevalent if warmer temperatures enabled insects, such as mosquitoes, to become established further north, facilitating the spread of malaria, yellow fever, dengue fever and encephalitis. Southern regions of England may become warm enough to support mosquitoes carrying such diseases.

Various tick-borne diseases, such as Lyme disease, which is already present in the UK, could also spread with milder winters and extended spring and autumn seasons.

Even now, accidental introductions of these species could cause serious outbreaks of diseases resulting in vast public expenditure in treatment and eradication.

Existing problems
Flies and cockroaches, in particular, can spread numerous disease-causing bacteria, viruses and protozoa. The free movement of flies, cockroaches and other insects from unsanitary to sanitary areas allows them to carry infections on the external surface of their bodies, in their mouthparts and within their alimentary canals.

Many common allergic reactions, notably asthma and eczema in children, may start as a result of exposure to pests such as cockroaches and house dust mites.

Each year, anaphylactic shock caused by bee and wasp stings is responsible for about 100 deaths in Europe and North America. Even where death does not occur, hospitals are put under increasing pressure. In Hull, the Royal Infirmary saw a rise in the number of patients being admitted with severe bites from 2 to 26 after the recent hot spell.

The full extent of the rodent problem is not known but there are estimated to be between 10 and 20 million brown rats inhabiting Britain’s streets, sewers and waterways. It appears that numbers are increasing, particularly in inner city areas. The National Rodent Survey 2002, carried out by the National Pest Technician’s Association, suggests a 29% increase in brown rats between 1998 and 2002.

The range of organisms known to be carried by rodents and the severity of some of the diseases they cause should be enough to demonstrate the importance of preventing rodents from entering areas where people live, work or play. However, there are also significant economic factors, which must also be considered.

Degraded environments
Districts with a reputation for undesirable conditions or persistent pest infestations will not attract the level of inward investment needed to maintain a prosperous and developing community.

Existing businesses may struggle to survive, finding the environment both unattractive and uneconomic and so may cease trading. Empty properties can become targets for fly tippers and vandals.
The N-PAP carried out the first CIEH survey on the role of pest management within local authorities in England, Wales and Northern Ireland during the first quarter of 2003.

Of the 402 questionnaires sent out to local authorities, 271 were returned, giving a response rate of 67%. Response rates varied with 72% of English authorities and 45% of Welsh authorities responding. In N. Ireland the response rate was equivalent to 35%.

Response rates from the local authorities within the CIEH centres are shown in Map 1.

The highest response rate was from authorities within the CIEH North West Centre, where 98% responded. The lowest response rate in England was from the East Midlands centre, with only 52% responding.

Populations within the local authority boundaries ranged from 10,000 to 1,000,000, with a mean of 149,000. Most (58%) had both rural and urban areas within their boundaries; 24% stated they were entirely urban; and 18% entirely rural.

Organisation of pest management

Only 3 respondents (2 district councils - one from south west, one from N. Ireland and a unitary council from southern England) did not provide a pest control service.

All three of the respondents dealt with pest problems by giving advice and where necessary using enforcement action. Seventy-eight percent of those local authorities that did provide a pest control service did so in-house; 13% contracted out this service; and 9% had a mixture of in-house and contracted out services.

In 81% of the authorities that responded, pest control was a stand-alone service within the Environmental Health Department. However in 19%, it was run as part of another council service. The most commonly cited services where pest control was located were animal welfare, cleansing and commercial services.

Only 12% of those authorities that provided in-house pest control services were fully supported by local authority funding. Usually the pest control activity was either partly or fully underwritten by income from charges for pest control services.

The results from this questionnaire have provided a rich source of information on the way in which pest control is carried out across England, Wales and N. Ireland.

The survey does not cover authorities in Scotland. These would be covered by surveys from The Royal Environmental Health Institute of Scotland.
The CIEH Viewpoint:
There are several points of concern, which the initial analysis of the data has highlighted and require further investigation:

- A trend towards uncoupling of pest control services in some local authorities from core environmental health activities;
- The lack of consistency in the provision of training and staff development;
- The lack of consistency in the approaches and justification of charging for pest treatments;
- The lack of consistency in the liaison between water and sewerage companies and local authorities on controlling rats in sewers;
- Inconsistencies in funding arrangements between water and sewerage companies and local authorities regarding arrangements for sewer baiting;
- Variability in the membership of pest liaison groups that could provide a forum for sharing good practice and to negotiate with, for example, water and sewerage companies.

* a single questionnaire was received from a group of 5 authorities which if treated individually would increase the actual response rate to 35%
The structure of local authority pest management

Staffing levels

The survey confirmed that a large number of people are involved in the operation and delivery of pest control services within local authorities.

Of the authorities that responded, 236 provided details about their staffing arrangements. The table below provides a breakdown of the responses on staffing levels.

Based upon the responses, there are 2,863 local authority staff working directly in pest management - 1,601 of them work full-time in pest management and for 1,262 such work is a major part of their duties.

Further analysis showed that over 430 of these staff are qualified EHOs.

However in 50 of the authorities that provided details, there were no EHOs directly involved in this service. EHOs were least likely to be involved in London Boroughs and Unitary Councils.

In addition to the above, many other EHOs and managers involved in food hygiene and housing have responsibilities that require a knowledge of pest management in their work.

Staff skills

All too often, local authorities fail to recognise the skills needed to manage pest control programmes. The work involves far greater than normal skills.

In particular, staff need to have:

1. An understanding of the biology and behaviour of pests. For example, rats and mice do not behave in the same way and different species of cockroaches reproduce in different ways. Consequently, different treatment programmes are needed. As a result of the need to reduce pesticide usage, these programmes are becoming increasingly target specific and complex.

2. A comprehensive knowledge of the law affecting pest management. All pesticide treatments are covered by regulations such as the Control of Pesticides Regulations 1986 and 1987 and by the Control of Substances Hazardous to Health Regulations 2002. Operators getting it wrong can cost their local authority up to £50,000 in fines and legal costs.

3. Good people skills and the ability to deal with members of the public, often in difficult conditions. Treating environments that have become or are likely to become degraded often requires a programme involving visits to different properties. On many occasions this will involve entry to people’s homes. Sensitivity and an understanding of the social conventions of different cultures and religions will be fundamental to the success of such programmes. As will be the ability to deal with people who are in a state of distress.
**Training**
These skills must be recognised in the training and standing of staff within the relevant departments. Moreover, if they are to be encouraged to build upon their knowledge and competence, staff must be able to see a recognised career progression.

The survey showed that whilst 66% of authorities have a structured training programme in place, 34% did not. Furthermore, only 47% of authorities operate a formal Continuous Professional Development programme.

Adequate funding needs to be provided both for initial training and ensuring that staff receive continuous professional development.

An example of wrong priority in this respect came to light during the preparation of the report. One local authority has a budget of £500 per annum to train its pest control technicians and yet is spending £700 a day to employ an independent consultant to help it achieve Investors in People status, the principal purpose of which is to help staff develop through training and continuous professional development!

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**The CIEH viewpoint**
The survey shows that pest management is a fundamental and important part of the work of local authority departments responsible for environmental health.

The skills needed to carry out effective programmes mean that staff need a high standard of training, expertise and communication skills. The dedication and abilities of staff presently working in local authorities are generally very high.

Yet authorities are failing to provide an adequate structure to enable new staff to achieve the level of skills needed, or to recognise the role that existing staff at all levels play in protecting the public’s health.

CIEH is concerned that because local authorities will fail to attract or keep the calibre of persons needed to provide and maintain the necessary quality of service, they will not be able to meet the future standards necessary to ensure areas are kept free of pest problems.

This will have a serious impact on the well-being and prosperity of their districts.

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**Table 1: Staffing levels within LA pest management operations**

<table>
<thead>
<tr>
<th>Position</th>
<th>Estimate of full-time staff</th>
<th>Estimate of part-time staff</th>
<th>Estimate of total number of staff</th>
</tr>
</thead>
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<tr>
<td>Full-time managers</td>
<td>105</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time managers</td>
<td>285</td>
<td></td>
<td></td>
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<tr>
<td>Full-time supervisors</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Part-time supervisors</td>
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</tr>
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<td>Full-time operators</td>
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<td></td>
</tr>
<tr>
<td>Part-time operators</td>
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<td>Estimate of part-time staff</td>
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</tr>
<tr>
<td>Estimate of total number of staff</td>
<td>2863</td>
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</table>
The need for good performance criteria

Respondents were asked in the survey about the performance criteria they used to judge the success of their pest control measures. Whilst two thirds had measures in place, a sizeable proportion did not (34%).

The most common means of measuring performance given were by reference to the number of call-back visits needed to re-treat areas and by customer satisfaction surveys.

The survey highlighted the variation in the way local authorities assessed their levels of infestation.

The most common means was by examining the number of enquiries made and the number of service requests (53%). Forty three percent only monitored the number of service requests and 2% only monitored the number of enquiries.

The remaining 2% either didn’t assess the levels or used other means (e.g. number of premises treated or number of confirmed infestations).

The CIEH viewpoint

The survey shows that most local authorities do measure their performance but that a sizable proportion (34%) does not.

Where there is assessment, the criteria used relies mainly on the number of complaints received rather than audited assessment of the quality of the work done and any assessment of confirmed infestations.

The problem is that the number of complaints can be significantly influenced by outside factors. A local story about the presence of rats or cockroaches will usually generate additional complaints and the absence of any such stories can lead to greater acceptance of poor standards through indifference.

Variations in the way infestation levels are assessed mean that meaningful comparisons between local authorities is problematic.

CIEH is concerned that as a result of this, there is no uniform national benchmarking available to local authorities, which would gauge the true levels of infestation and subsequent success of pest management programmes. Without this, it is difficult to review and enhance the services provided.

Local authorities do need to agree national standards and must be prepared to make funding available to ensure that quality assurance schemes are in place. This would involve having staff suitably qualified to make the necessary assessments.
The effect of charging on pest control services

Owing to financial pressures exerted by successive governments, local authorities have been forced to re-examine their services, including pest control and identify areas where significant savings can be made or income generated. As a result of this pressure, most local authorities have introduced charges for pest control treatments to generate necessary income.

Charging
The survey found that only a small proportion (12%) of those authorities that provided in-house pest control services were fully supported by local authority funding. The more common model (88%) was one where the pest control activity was either partly or fully underwritten by charges for the service.

The survey also shows that the major pest problems within local authorities are still cockroaches, fleas, bedbugs, wasps, rats and mice.

There was little uniformity in the way in which authorities dealt with their pest problems and the charges levied for services. For example, in domestic premises some treated rats and mice free of charge; others treated rats free of charge but charged for mice; others levied differential charges for owner occupied or private rented properties but treated council houses free of charge; whilst others made a standard charge for domestic treatments irrespective of ownership.

Disadvantages of charging
The recent experience of one council is worth noting. The local paper reported that having introduced a charge in April 2003 for rodent control, subject to a review after 6 months, the council decided to scrap the charge in September "following concern that the charges have been deterring the public from seeking expert advice."

"The council found that there had been a significant fall in requests for domestic rodent treatments since charges were introduced. There could be health and safety problems because people were trying to undertake their own treatments rather than having to pay and there were more reports from parish councils about sightings of rats".

In a report to the council, officials concluded that because of the reduced number of treatments, "the income from the charges as considerably less than budgeted and that this had been countered by the increased cost of the use of environmental health officers. In addition, the effect of using the latter means that they are not doing other work which will impact on targets".

The CIEH viewpoint
CIEH is concerned that as a result of this policy and commercialisation, the service provided by local authorities depends upon raising cash from selling those services. CIEH is concerned that the most disadvantaged in the community simply cannot afford, or do not ask for, assistance because of this.

This may have an insidious effect on the spread of pests, particularly to those most vulnerable in the urban environment, as necessary treatments are no longer carried out.
A number of local authorities have elected to externalise their pest control service, particularly where the necessary in-house skills are lacking as a result of cutbacks. Contracts are awarded to commercial pest control contractors to carry out the service on behalf of the authority.

CIEH is concerned that the loss of in-house local authority pest control may impact on other environmental health services. For example, in food premises where infestation exists in several buildings, it could be difficult for food enforcement staff to co-ordinate integrated control measures to treat all the affected premises if the pest control services are contracted out.

This could inevitably lead to further fragmentation of environmental health services.

Where contracts are used, these must be drafted carefully by staff who understand the significance of their requirements.

**Contracting-out**
According to the survey, 59 of the authorities that responded (21%) contracted out some or all of their pest control operations to commercial companies. Some councils (12%) have outsourced all their pest control operations and some (9%) have outsourced some of their functions.

Of these, 56% had fixed term/fixed price contracts, 30% had contracts based on the jobs done/number of properties treated and the remainder (14%) had a mixture of the two.

The issue that this raises about fixed term/fixed price contracts is whether companies will be able to react properly to new local conditions that arise from time to time, since the full extent of pest problems may not be known at the time of tendering.

There is also considerable concern that the loss of qualified in-house expertise within the Environmental Health Department, which may follow contracting-out, could lead to problems not being discovered early enough to achieve timely control or could result in inappropriate control measures being suggested.

**Monitoring of contracts**
Those with contracted-out operations were asked in the survey about the frequency with which these services were audited.

Thirty nine per cent stated that they audited randomly, 12% audited annually, 13.5%, quarterly, 13.5% had other arrangements and 22% stated that they did not audit the service.

Where auditing did take place, only 25% used personnel with a specific pest management qualification.
The CIEH viewpoint

The survey shows that only a small proportion of local authority pest management has been out-sourced. It also shows that there is clearly inadequate auditing of standards.

CIEH would be very worried if the quality management of the contract is the responsibility of the same person or persons responsible for achieving cost reductions in budgets. The temptation to accept lower standards of work in exchange for lower prices would not be in the interests of either the authority or the local residents or businesses.

CIEH would point out that:

1. There is no evidence that private pest controllers are any better trained than their local authority counterparts, nor that their operations are any more efficient. Conventional market place wisdom is that previous experience of privatising pest control in the public sector, i.e. in hospitals, has not been a success.

2. The prime principle behind private pest control is the provision of services to generate profit; the prime principle behind local authority pest control is the provision of services to protect the well-being of the local community. The two should not be confused.

3. Pest management in local authorities requires a holistic approach involving:
   i. an overview of the needs of the whole district;
   ii. an ability to enter private premises where necessary with legal powers; and
   iii. a good understanding of the traditions of a wide range of cultures and religions, especially in areas of high ethnic populations.

CIEH believes strongly that, whilst the out-sourcing of specific contracts under the control of the Environmental Health Department may be desirable from time to time, contracting out the entire operation on fixed term contracts could seriously affect the standards of pest management within the authority and could lead to a loss of in-house expertise.
A number of local authorities have set up pest liaison groups to co-ordinate the activities of pest control departments within their areas. These groups meet on a regular basis to:

- act as an advisory body for the improvement of local pest control services;
- carry out research into pest control techniques and, where appropriate, co-ordinate the supply of equipment and the collation of results of such investigations and research for the benefit and use of the constituent authorities within the Group;
- hold equipment for the mutual use of constituent member authorities;
- hold stocks of display material for publicity and educational purposes and undertake publicity and educational activities on behalf of the Group;
- publish and distribute printed and/or illustrated material relating to the prevention and control of pests;
- organise conferences, meetings and courses of training, instruction and education;
- act collectively on behalf of the constituent authorities in matters of mutual interest on the subject of pest control.

At the meetings, presentations are usually given on matters of topical interest. The benefit of such groups is significant since although pest control is the responsibility of each authority, problems are rarely encountered in isolation.

In the survey, 70% of respondents reported that they were members of a pest liaison group.

Membership within CIEH centres varied, with all respondents from the north west confirming they were members of a pest liaison group, but membership in the North Home Counties (45%) south west (36%) and Wales (10%) was low. The percentage of respondents is shown in map 2.

Most (85%) of the authorities that were not members stated that they would like to join a pest liaison group, if one were active in their area.

One of the aims of the N-PAP is to support and assist existing groups and to encourage the establishment of new ones, wherever possible.

**The CIEH viewpoint**

The survey shows that most local authorities do support a local pest liaison group and the CIEH strongly recommends that where no pest liaison group exists, such a group is established.
The control of rats in sewers and drains

In view of the importance of the subject, the quality assurance of work involving sewers is of particular interest.

Respondents were asked about the arrangements for the control of rats in sewers within their authority boundaries. 178 authorities responded.

Some two thirds (65%) confirmed that sewer treatments were undertaken, 27% stated they were not undertaken and the remaining 8% did not know. In those authorities where sewer baiting was undertaken, respondents were asked to identify which organisation(s) carried it out.

Fifty-two percent said that the work was undertaken by the local authority. In 19% of the cases it was undertaken by private contractors working for the sewerage undertaking, in 14% it was the sewerage undertakers themselves and in 11% it was a combination of local authorities, sewerage undertakers and/or contractors. 4% didn’t know.

In November 2000, Water UK issued a protocol providing a mechanism for improved communication and co-ordination between local authorities and the water and sewerage companies on the control of rats in sewers. This was to provide the basis for a closer working relationship.

The protocol states that:
1. Where a Water UK member commences a new sewer baiting activity, it should inform the relevant local authority;

2. Where a local authority commences a new baiting activity to combat rat infestation, it should inform the relevant Water UK member;

2. Where possible, sewer baiting to combat rat infestation should be undertaken in a complementary manner, by agreement between the local authority and the Water UK member.

Just over half of the respondents (53%) stated that they were aware of it. However, a quarter (26%) were not and a fifth (21%) were unsure whether their local authority were aware of it.

A third of respondents reported that the sewerage undertaking never liaised with them on sewer baiting.

Where liaison did take place, a quarter reported regular, planned liaison; a quarter regular liaison when required; and just under half stated it was irregular.

The control of rats in sewers is considered to be an important part of any integrated rodent control programme - sewer baiting should complement the control strategy for surface infestations and vice versa. Rats will move readily from one environment to another in search of food and a co-ordinated approach to control is therefore desirable.

The concern for local authorities is that reduced control measures within the sewer system may contribute to an increase in surface infestations, which they will have to deal with out of their limited budgets.

The CIEH viewpoint
The survey shows that there is a lack of consistency in the liaison between sewerage undertakers and local authorities on controlling rats in sewers.

This is contrary to the National Protocol issued by Water UK in November 2000.

CIEH is concerned that rat control in sewers is inadequate and under-funded and this failure is leading to an increased rat population above ground.