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Scotland

Where are we with contaminated land in Scotland?

NSCA Scotland Survey on Part IIA in Scotland

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part funded by EU FP5 project URBSOIL (EVK4-CT-2001-00053 & amendment EVK4-CT-2001-00543)



Acknowledgements

This survey was carried out on behalf of NSCA Scotland, by the University of Paisley. The authors would like to acknowledge the input from the national NSCA Land Quality Committee and NSCA-Scotland Contaminated Land Advisory Panel (Ann Jobson, West Dunbartonshire Council, Nigel Kerr, East Dunbartonshire Council and Kim Bradley, SEPA)

This survey has been part funded by EU FP5 project URBSOIL (EVK4-CT-2001-00053 & amendment EVK4-CT-2001-00543)

1. Introduction

In the summer of 2003, NSCA undertook a survey in England and Wales to assess the difficulties, or not, that regulators face in implementing The Environmental Protection Act 1990 Part IIA. NSCA Scotland has now conducted a similar exercise in Scotland. This was the first opportunity that Scotland had to gauge the success and difficulties that local authorities, as well as SEPA, have had in implementing Part IIA. It also provided an opportunity to demonstrate progress that local authorities had made with the Contaminated Land Regime and highlight any inhibitors to progress.

NSCA Scotland, in conjunction with the University of Paisley, asked Scottish regulatory authorities to participate in a state of the art, electronic questionnaire. Available online, it did not take long to complete and with the results being available immediately, rapid dissemination was possible. The questionnaire was made available from 17:00, Monday 17 November 2003 and closed at 23:00 on Monday 15 December 2003. Summary details of the results were made available to NSCA-Scotland in early January 2004.

The survey was structured in two parts. The first section (20 questions) was not anonymous, and was based on the questionnaire used by the NSCA during summer 2003 in England & Wales and modified by the NSCA Scotland's Contaminated Land Advisory Group. On completion of section one, the respondents were asked to re-register and complete the second section (3 questions). This section was anonymous to allow open and honest dialogue from the respondents and was designed to look at soil sustainability issues in a wider context.

Representatives from 29 Local Authorities (LAs) and one representative from SEPA replied to all sections of the questionnaire. This represents a response from 91% for all LAs in Scotland. All but four LAs, who responded, are NSCA members.

2. Local Authority Structure

Table 2.1 shows the average full time equivalent (FTE) staff numbers working on contaminated land. For the authorities that replied, a total of 43.56 full time equivalents are employed, representing an average of 1.61 FTE per Authority. The median value (1) represents the middle value between the ranges of full time equivalents for all authorities. This is smaller than the average (1.61), because only 41% of Authorities have either one or more full time equivalent(s) working on contaminated land issues. Almost all (97%) FTE working on contaminated land in local authorities in Scotland are placed within environmental health services.

	<i>Low</i>	<i>High</i>	<i>Median</i>	<i>Mean</i>	<i>StDev</i>	<i>Total</i>
Full Time Equivalents on Contaminated land	0.005	5	1	1.61	1.28	43.56

Table 2.1: Number of People Working on Contaminated Land (full time equivalents) within the 28 Scottish Local Authorities replying to Questionnaire

2.2 Main Focus of Work

Table 2.2 highlights the main focus of work by contaminated land workers within local authorities in Scotland. It shows that the majority of work is separated between two main areas: Implementation of Part IIA of the contaminated land regime (93%) and planning issues (68%). The other responses can broadly fit within these two categories. Only one authority did not list either Implementation of Part IIA or planning issues. Instead, they highlighted that dealing with consultants was their main focus of work. This is because they state that all work relating to Part IIA and planning issues are dealt with by consultants.

Main Activity	# Authorities	% Authorities
Implementation of Part IIA	26	93
Planning issues	19	68
Identification	6	21
Prioritisation	6	21
Property enquiries	5	18
Inspection	4	14
Development control	4	14
Dealing with consultants	3	11
Remediation	2	7
Environmental searches	2	7
Managerial	2	7
Reviewing reports	2	7
Site investigations	2	7
Monitoring	1	4
Council liability	1	4
Owner identification	1	4
Strategy implementation	1	4
Providing Environmental Info.	1	4

Table 1.2: Focus of Work of Contaminated Land Officers/Workers Within Scottish Local Authorities

All local authorities have an adopted contaminated land strategy and all but one of the LAs stated that the strategy had been formally agreed by committee. In the case of the other LA, the strategy had been agreed by the full Council. Fifteen (56%) of respondent LAs state their strategy is published on a website.

3. Target date for completion of inspection

Table 3.1 displays the target date estimated by each responding council for completion of their area inspection. There are only two councils that estimate that they will be clear by year-end 2003. This is at least two years ahead of 75% of the LAs who engaged in the survey.

Detailed analysis of survey responses provides no obvious indication for the reason why two councils should be so far ahead. The number of potential sites of contamination indicated by these two councils is across the range of low to high, when compared to other councils. In addition, the number of full time equivalents (two and one respectively), within these two councils, engaged with Part IIA is by no means the highest.

Target Date	Number of Councils	Percentage
>2005	21	75
<2005	5	18
<2003	2	7

Table 3.1: Target Dates for Completion of Area Inspection

3.1 Inspection Programme Details

Fifteen local authorities (56%) state that their inspection programme is on schedule and all but one local authority (96%) state they have found potential areas of contaminated land. The number of actual sites estimated range from 50 to over 6000. This does not seem to vary proportionally with geographical size.

Priority	Median	Mean	Minimum Est.	Maximum Est.	Total
High	107	129	6	400	2062
Medium	379	1182	31	6275	18913
Low	165	358	1	1855	5365

Table 3.2: Averages and Total number of Prioritised Sites From Responding Local Authorities

Seventeen local authorities (63%) have prioritised their sites. Their priority classification is summarised in Table 3.2. Table 3.2 highlights again the wide range of estimates coming from each Local Authority especially within the medium priority class, with a range from 31 to 6275. The survey data provides little evidence to indicate that these large differences in estimation criteria attributable to specific working practices within the LAs.

4. GIS

All but one local authority currently uses a geographic information system (GIS) as an aid for Part IIA. Table 4.1 highlights the GIS in operation as reported by CLOs. Where the CLOs have stated a particular version of GIS, this has been listed separately.

GIS	ArcView	ArcView 8.x	ArcView 3.x	Mapinfo	GPP
Number	13	3	3 (with one using 8.x soon)	3	5
Percentage	46	11	11	11	15

Table 4.1: GIS Systems Utilised by Respondent Scottish Local Authorities

The local authority not currently using GIS is however in the process of installing ArcView 8. Taken together, therefore, ArcView is the most popular GIS system utilised by Scottish Local Authority contaminated land officers with 20 responses (71%). However, when considering the versions utilised (Table 5.1) an even spread of systems exist with three versions of GIS with 3 LAs (11%) and one GIS version with 4 LAs (15%). It has to be noted here that in the longer term, changes of software use, may raise issues of upgrading and compatibility.

5. Prioritisation Models

In total seven different prioritisation models were identified as being used by the LAs that responded. Table 5.1 summarises model usage. Note that six authorities have still to state which model they will use and four have stated they are yet to implement their prioritisation procedures.

Prioritisation Model	CLARE	Groundview	ECLIPSe	DREAM	BABTIE	Internal	BGS
# Authorities	2	2	4	1	6	2	2
% Authorities	9.09	9.09	18.18	4.55	28.57	9.06	9.09

Table 5.1: Prioritisation Models and their Uptake by LAs

The most popular model implemented so far is the Babtie system, with just over 28% (6) of LAs authorities, using a model, utilising it. Tables 5.2 - 5.5 compares the use of the Babtie model against all other models. In these tables, basic summary statistics are provided for the responses obtained. Where negative values are presented, then the Babtie model has identified more sites than all the other prioritisation models.

High								
	Median	Mean	St. Dev	Total	Range	Max	Min	Proportion
All-Babtie	96	117	125	1283	394	400	6	0.13
Babtie	137	156	105	779	257	289	32	0.05
Difference	-41	-39	20	504	137	111	-26	

Table 5.2: Comparison of the number of High Priority Sites Identified using the Babtie Model with the other Six Prioritisation Models Utilised by LAs

Medium								
	Median	Mean	St. Dev	Total	Range	Max	Min	Proportion
All-Babtie	135	380	563	4182	1769	1800	31	0.43
Babtie	2590	2946	2018	14731	5423	6275	852	0.88
Difference	-2455	-2566	-1455	-10549	-3654	-4475	-821	

Table 5.3: Comparison of the number of Medium Priority Sites Identified using the Babtie Model with the other Six Prioritisation Models Utilised by LAs

Low								
	Median	Mean	St. Dev	Total	Range	Max	Min	Proportion
All-Babtie	46	420	680	4195	1854	1855	1	0.43
Babtie	237	234	162	1170	443	468	25	0.07
Difference	-191	186	518	3025	1411	1387	-24	

Table 4.4: Comparison of the number of Low Priority Sites Identified using the Babtie Model with the other Six Prioritisation Models Utilised by Las

Difference	Median	Mean	St. Dev	Total	Range	Max	Min
High	-41	-39	20	504	137	111	-26
Medium	-2455	-2566	-1455	-10549	-3654	-4475	-821
Low	-191	186	518	3025	1411	1387	-24

Table 5.5: Comparison of the number of Sites of different priority, identified by the Babbie Model with the sum of those identified using the other Six Prioritisation Models Utilised by LAs

With respect to the proportion of sites prioritised, there appears to be a considerably higher proportion prioritised as medium via the Babbie model (88% of all sites). This compares with 43% prioritised as medium or low respectively by other models. However, with other factors within the prioritisation process, such as individual site characteristics and human judgment, it is impossible to state whether any prioritisation model behaves differently than others without further investigation.

6. Identification Notices and Special Sites

6.1. Identification Notices

There are two authorities that have issued identification notices. Only one of these is in the process of consultation while nothing is occurring in the other. Another site exists, presently in the process of consultation, but as yet no identification notice has been issued.

6.2 Special Sites

Three special sites have been noted. Of these, two are within a consultation process. Nothing is occurring for the third although additional site investigation is planned for the beginning of 2004.

Additional information is only available for one of the special sites in consultation. Here, the area has been identified as a potentially special site due to the nature of the historic activity, which has left residual pollution from oil refining. At present the LA in question is working with consultants to delineate the extent of any residual contamination and is proceeding cautiously, as the site, while not fully developed, has mixed commercial, industrial and residential (with gardens) use. The most likely problem at this site will be pollution of controlled waters.

Of the two sites, in two separate authorities, which have been identified and are still under consideration, one may possibly be designated as a special site. For the other, the site issued with an identification notice also includes an area that is regarded as a Special Site. The LA has been in discussion with the Scottish Environment Protection Agency, however no agreement has been reached, and further meetings are planned.

Another site is currently within the Planning Regime - it may or may not be developed, and therefore may be returned to the Contaminated Land regime to be identified.

7. Remediation and Spending

7.1 Voluntary Remediation

	<i>As Part of Redevelopment</i>	<i>As Part of Part IIA</i>	<i>Both</i>	<i>Have not Discussed Voluntary Remediation</i>
# Authorities	19	2	1	6
Percentage	68	7	4	21

Table 7.1: Discussions of Voluntary Remediation by Local Authority Respondents

Table 7.1 highlights discussions of voluntary remediation by local authorities so far. It shows that over two thirds (68%) of any discussion of remediation occurs as part of redevelopment of the site and not as Part IIA.

Only one authority provides an example of voluntary remediation being discussed as part of Part IIA. However, the site in question is now part of a new planning application. The site now requires more remediation through the planning process than would have been appropriate under Part IIA.

Other comments relating to voluntary remediation suggest that dialogue with land owners and their consultants is the favoured approach. As one authority states, formal approaches to remediation would only occur when “all other means have been exhausted”.

7.2 Authority Remediation and Spending

Table 7.2 summarises the remediation activity and spending by responding authorities. No remediation notices have been sent out but three councils (11%) have received remediation statements. Six councils (22%) have had to carry out remediation themselves with seven sites listed in total. Twenty four councils (89%) have stated they have used capital consent money to inspect and carry out remediation. Of those that do not, one state they do not receive any, one is not at that stage and one council did not answer the question.

	<i>Have you received remediation statements?</i>	<i>Have you been obliged to carry out remediation yourselves?</i>	<i>Do you use capital consent money to inspect sites and carry out remediation?</i>	<i>Are you currently under spent?</i>
# Authorities	3	6	24	21
% Authorities	11	22	89	78

Table 7.2: Remediation and Spending by Local Authority Respondents

Twenty one councils (78%) are currently under spent. However, from comments made by the fifteen of those authorities who are under spent, all but two state that the next stage of implementation will utilise all the money that has been allocated. The money will be used either for projects identified/prioritised, intrusive tendering, utilisation of consultants or remediation by the authority themselves. Two authorities state that future implementation will be restricted by capital allocation.

8. SEPA Reports

Eleven authorities (39% of respondents) have submitted information to SEPA for their reports on contaminated land.

9. Legal Briefings

Thirteen authorities (46%) have stated they have sufficient briefings from their legal departments to make them feel confident in making decisions. Thirteen authorities state they do not. From ten additional comments, only one authority states that the legal cover is excellent. Three comments state that one of the contaminated land officers from their respective authority advises the legal team. One comment states that legal advice only comes when “push comes to shove” while another two comments relate to the lack of necessity for legal advice either.

A comment together with a suggestion came from one respondent:

“The turn around in answering queries is quite considerable. The problem may be due to the lack of relevant Environmental Law experience within the authority and also the infancy of the legislation relating to contaminated land, Part IIA. The legislation has still to be legally challenged. Most solicitors usually wait for a precedent to be set before they feel confident on the legal strength of a piece of legislation. A way in which NSCA could assist would be to operate a series of seminars on Part IIA specifically for local authority Solicitors to further their knowledge on the subject. The Scottish Executive could also provide access to a Solicitor with a specialism in Environmental Law within their employment to answer local authority queries or a private law firm specialising in Environmental Law could be utilised to answer queries. The cost of this could be taken from local authority contaminated land budgets. This will provide knowledge to authorities and in time would build on the knowledge gained.”

10. Statutory Regime

10.1. Confidence in Statutory Regime

Table 10.1.1 highlights the level of confidence that CLOs have in the statutory regime.

	<i>Quite Confident</i>	<i>Reasonably Confident</i>	<i>Unhappy</i>
# Authorities	11	7	9
% Authorities	39	25	32

Table 10.1.1 Authorities Confidence in the Statutory Regime

It shows that just under one third of respondents are unhappy with the statutory regime. Table 10.1.2 highlights the main issues and has been compiled from additional comments made by the respondents.

Statutory Regime Issues	# Comments	% Comments
Controlled water	6	25
Lack of guidance	6	25
Apportioning Liability	3	13
Remediation	3	13
Subjectiveness	2	8
Contaminated site Boundaries	1	4
Pollution Linkages	1	4
Role of SEPA	1	4
Lack and limitation of tools	1	4

Table 10.1.2 Issues Associated with Statutory Regime

Summarising the issues associated with the statutory regime proved problematic, for many issues could be assigned within different categories. For example, it can be seen from Table 10.1.2 that lack of guidance on the regime is one of the two highest issues. However, this is a fairly generic issue that could be applied to almost all other categories. Similarly, the issue of 'subjectiveness' was raised by two respondent CLOs, but subjectiveness could be classed as lack of guidance.

As an interpretation, it appears that lack of guidance is the prime issue. Be it applying to controlled waters; what constitutes 'significant pollution'; the size of a special site and where site boundaries lie; lack of toxicological data; should sites be identified if voluntary remediation is being pursued, format for identification notices or timing of notices. As respondents gave these issues as examples only, it is assumed this is not a definitive list.

The greatest specific issue relates to controlled waters with six out of sixteen respondent comments (37.5%) relating to clarification of the issues involved. One respondent summarises:

"There is obviously a grey area about what constitutes "significant" pollution of controlled waters. A pragmatic approach needs to be adopted as there would be a lot of unnecessary designations if controlled waters were to be considered in every case regardless of their background quality. This is particularly relevant in Scotland, where there is little groundwater abstraction in comparison to England. Councils need to be given clearer guidelines on the "reasonableness" of groundwater remediation requests and what actually constitutes groundwater pollution. Can a "suitable for use" philosophy be applied to groundwaters? Another tricky issue is the apportionment of remediation costs. Understandably complex, there is the difficulty of identifying responsible persons and also the hardship clause which could potentially lead to the cost being picked up by the local authority. This in turn creates a reluctance to designate any site apart from those that are outstandingly contaminated or those with easily identifiable responsible persons. The political ramifications of potentially "blighting" a site through Part IIA designation is another factor which leads to reluctance to designate."

10.2 Technical Guidance

To aid site investigation, risk assessment and remediation, there are over thirty different sources cited for guidance. CLEA, British standards (BS10175), SNIFFER, EA, RBCA and CIRIA documentation are the most commonly utilised. However, as one CLO stated, the list is "non-exhaustive". This is proving problematic as figure 10.2.1 highlights.

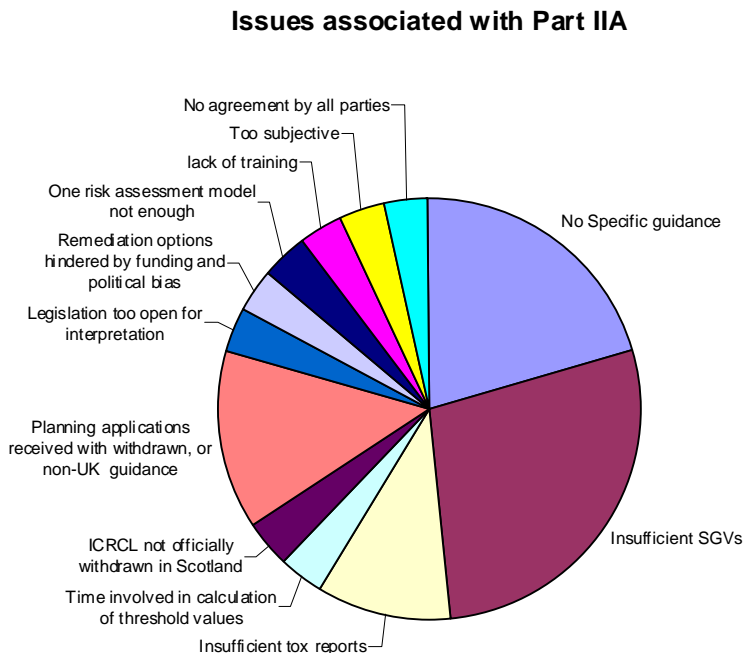


Fig. 10.2.1: Issues associated with technical guidance for Part IIA

Figure 10.2.1 presents the responses from CLOs when asked about issues relating to technical guidance for part IIA. Over 72% of responses relate to

- insufficient soil guideline values
- insufficient toxicological reports
- no specific guidance or standard
- planning applications received with non-authoritative guidance

One respondent condenses the issues and summarises the views of the many other comments:

“The one we'll not hear the end of for a while - DEFRA's withdrawal of the ICRCL value and the slowness of the emergence of new Tox reports and SGV's. In the absence of British standards, local authorities are expected to either ask the consultant to justify the use of/adjust foreign values, to generate soil guideline values (SGVs) using toxicological (Tox) report data or to generate SGVs using independently researched Tox data. This whole process is fraught with error, and both consultancies and local authorities know it. In a recent trial, 6 Scottish local authorities tried to generate a CLEA SGV for benzene using the Tox report data - the answers were all different due to calculation error and the variety of chemical parameter data sourced on the Internet, even though the tox data used was all consistent. In a situation where DEFRA-approved Tox data is not available, a complex and time-consuming trawl of British, EU, WHO and American sites is carried out (with the latter being by far the best for locating data; unfortunately, these sites are last in the recommended information hierarchy). Consequently, consultants prefer the tried-and-tested values of other countries, and CLEA/SNIFFER SGVs will not be generated with time consumption and hence expense being the justification. And if the regulators can't get a consistent answer with the available tools, should consultants be any better? I keep arguing that the regulators and consultants could each contribute a subscription to employ a team to provide up-to-date tox and chemical parameter data for the many contaminants that aren't yet covered by CLR tox reports/SGVs. Surely this would be better than so many people spending hours on the web trying to locate data?”.

11. Future NSCA Seminars

The respondents were asked what they would like NSCA Scotland to cover in future training conferences and seminars. Twenty respondents (70% including SEPA) provided suggestions covering a wide range of topics. Table 11.1 provides those topics, which attracted interest from more than one respondent.

Topic	# Respondents
Legal / Liability Aspects	9
Remediation Notices	4
Hydrocarbons	3
Dealing with controlled waters	3
Risk Assessment	3
Consultant report reading	2
Communication to stakeholders/general public	2

Table 11.1 Popular Respondent Suggestions for NSCA Scotland Conference and Seminar Topics

Table 11.1 does not provide an overall picture. Although legal and liability aspects are the number one choice, three respondents specifically want legal and liability aspects relating to remediation notices. Similarly, there one respondent is asking for a linkage of hydrocarbons to controlled waters as "many of the contamination situations encountered are due to hydrocarbon fuel spills, there is a strong case for training in Risk Based Corrective action (RBCA) or a similar one that allows for speciation of the hydrocarbon and allows modeling of the impact on human and controlled waters receptors."

12. Regional Groups

The respondents were asked whether their authority was part of a regional area group on land contamination issues and about the usefulness of such groups. In summary, there is no dissent to the usefulness of regional groups. Common benefits from these groups include the exchange of information, updates on aspects of contaminated land, formulation of procedures and dissemination of best practice. The regional groups allow cross border consistency and can provide a level of confidence for CLOs.

A more detailed overview of the regional groups is provided below. The responses and comments are divided into the regional groups the respondents specified. They are in no particular order.

12.1 SEPA/LA Liaison Group

The group, which comprises the 12 West of Scotland local authorities which make up the area of the former Strathclyde Region, meets quarterly to discuss all aspects of contaminated land.

There are twelve respondents who are part of this group. Nine of the respondents find the group 'very useful'. The reasons they state is that it ensures that LA's within Group:

1. Are aware of current and future developments relating to Contaminated Land.
2. Have a consistent approach in dealing with all matters relating to the new regime.
3. Act as an information exchange.

4. Can highlight issues that require to be addressed back to Scottish Executive.
5. Ensures understanding between LA's and SEPA.

SEPA/LA group allows detailed debate regarding matters of current interest and provides a forum for developing consistency. Recently meetings have been themed and have allowed in-depth discussion. This has meant the authorities have been working towards consistency in approach.

All potential issues between the two regulators in the context of Part IIA, are identified discussed and (usually) resolved at an early stage. In addition, peer support contributes positively to officer confidence.

Table 12.1.1 summarises the main benefits of the SEPA/LA West of Scotland Liaison Group.

Usefulness	#
Exchange of information	4
Formulation of procedures and consistency	2
Air Grievances	2
Brainstorming	1
Good working relationships	1

Table 12.1.1: The Main Benefits of the SEPA/LA West of Scotland Liaison Group

There is only one voice of reservation from the comments generated for this group:

“At first the meeting was very useful and then unfortunately came a lull and nothing really constructive came from the meeting. Recently the meetings agenda has been more targeted and it is now a very useful meeting to attend. As long as it continues in this mode it will be valuable.”

12.2 North of Scotland Pollution Liaison Group

There are seven respondents who are part of this group. Only two provide real insights though none state that the group is not useful. One authority has difficulty due to time and expenditure costs.

Two respondents state that, at present, the meetings tend to deal with only issues of contaminated land. They state this has limited value and is unfair on other issues. One feels that a separate contaminated land group would be better while the other feels a forum for contaminated land would benefit by covering all Scotland.

12.3 South East Scotland Pollution Working Group

Four respondents are part of this working group. All find it useful. However, one authority does not find that the group influences their approach. One states that in due course there may need to be a group specifically for contaminated land.

12.4 Central and East Pollution Liaison Group

There are three authorities that state they are part of both Central and East Scotland Pollution Liaison Group. Two state they are part of East Scotland only. Taken together, all find it useful because it allows updating as to developments in contaminated land, exchange of information and allows platform for discussion of contaminated land issues and development of consistent approach.

12.5 Scottish Pollution Control Co-ordinating Committee

This is a National Pollution meeting where all aspects of pollution are discussed. Information from this meeting is then passed down to regional meetings. SPCCC is sponsored by the Royal Environmental Health Institute of Scotland (REHIS) and comprises representatives of Regional Groups, SEPA and the Scottish Executive.

12.6 Additional Groupings

Stirling and Clackmannanshire Contaminated Land Officers meet on an 'ad-hoc basis' according to one respondent. This respondent adds that it is extremely useful to bounce ideas off each other. In addition, there is also the East, North, South Ayrshire and Inverclyde Councils Benchmarking Group highlighted by one respondent who states that it too is "very useful for exchange of information and formulation of procedures".

A Scottish-wide e-mail group enables pressing questions to be raised quickly to obtain views of colleagues throughout the country and posts current practice. The e-mail group is useful for disseminating information. It is administered by Highland Council. One respondent recognised the e-mail group as an attempt to provide a national forum.

13. Anonymous Section

There was an anonymous section within the NSCA Scotland survey. This contained three questions. Fine-tuned in liaison with NSCA Scotland, they were initially constructed by the University of Paisley, as one of the partners of the URBSOIL project.

URBSOIL is an acronym for:

Urban Soils as a Source and Sink for Pollution: Towards a Common European Methodology for the Evaluation of their Environmental Quality as a Tool for Sustainable Urban Management'

URBSOIL is a network of seven institutions from six different countries from across the European Union and is funded as part of the European fifth framework programme (contract number: EVK4-CT-2001-00053; URBSOIL). For more information on URBSOIL and the European fifth framework programme, visit <http://urbsoil.paisley.ac.uk>.

These questions were asked within the broader context of soil "as a sustainable resource". Their purpose was to allow URBSOIL to gain insight into difficulties associated with sustainable urban soil management, from an end user point of view.

13.1 Soil Characterisation

When asked where soil characterisation would be conducted, twenty six LAs responded. Figure 13.1 highlights the responses by way of a box plot and shows that over 75% of LAs do not, on average, consider soil characterisation before it is required as part of planning consent. In fact only three authorities (19%) stated characterisation would be, on average, conducted before the local area plan.



Table 13.1: Box Plot of LA Replies Highlighting, on Average where Soil Characterisation fits into the Planning Process with Scotland. 9 Represents Soil Characterisation *Always* Occurring as Part of Planning Consent and 1 as *Always* Before the Local Area Plan

13.2 Tools and Aids

The survey asked that once a potential contaminated site has been identified what tools/aids, in addition to finance, would the respondents find of use to increase their confidence in their decision to proceed to an identification notice. Table 13.1 provides an aggregated list of responses. It is clear there is not a consensus from the respondents on this issue.

Tools/Aids	Respondents
Good independent legal advice	4
Improved data	4
Subsurface modelling, or use of a consultant with one	3
Site specific expert guidance	3
Independent review of information	2
history of site usage, transactions	2
Site Specific tools	2
Knowledge of procedures used successfully by other LAs	2
A definitive risk assessment tool	1
None now that it has been done	1
Further analysis - verification	1
Choice of tool	1
sustainability and planning tools	1
SGVs	1
Standard template for ID notice	1

Table 13.1: Aggregated List of Tools/Aids as Provided by Respondents that, in Addition to Finance, Would Increase their Confidence in their Decision to Proceed to an Identification Notice

13.3 Key Needs to Improve Stakeholder Appreciation of the Soil Resource

The survey asked what the respondents key needs would be, in addition to finance, that would improve stakeholder appreciation of the soil resource and thus encourage sustainable use of soil. Table 13.2 provides an aggregated list. Once again, there is no consensus from the respondents of an optimum approach.

Key needs to improve stakeholder appreciation of the soil resource	Respondents
Properly organised programmes of education	4
Research and awareness of different/innovative remediation techniques	3
Guide to brownfield soil types and final uses	3
Raising awareness of responsibilities	2
Higher landfill tax and discouragement of dig and dump	2
Effective dialogue and compromise between parties	2
Tax breaks for redevelopment	1
Robust scientific evidence in a user friendly format	1
Remediation placed within monetary costs	1
Publicity following enforcement	1
More user friendly approach to investigation/remediation	1
Limit greenfield developments	1
Incentives to developers for developing brownfield	1
Higher profile in local plans	1
Encouragement to re-cycle land	1
Easy to follow dos and don'ts	1
Better quality of consultants at a better price	1

Table 13.2: Aggregated List of Key Needs that Respondents feel Would Encourage a Sustainable Use of Soil

14. Conclusions

This survey was the first opportunity that Scotland had to gauge the success and difficulties that local authorities, as well as SEPA, have had in implementing Part IIA. The survey produced a response from 91% of all LAs in Scotland.

Of the respondents, the survey highlights that 75% of the authorities estimate they will not complete their respective area inspection until after 2005. A total of 63% have prioritised their sites, with widely ranging numbers of potentially contaminated sites and differences in prioritization categories found across the sector. In 68% of responding authorities it was found that the discussion of remediation occurs as part of redevelopment, not as part of Part IIA, and that there is strong suggestion that formal remediation notices would only occur as a last resort.

The survey has also identified many issues associated with implementation of the statutory regime. 32% have reported being unhappy while 72% of the issues reported relate to lack of guidance. The most popular suggestion for future NSCA Scotland seminars is for legal advice relating to Part IIA.

Regional area groups on land contamination issues are found to be useful with common benefits of exchange of information, updates on aspects of contaminated land, formulation of procedures and dissemination of best practice.

In the wider context of soil resource management, characterisation of soil generally occurs as part of a planning consent and in this respect, wider appreciation of sustainability issues can only come from improved awareness and education.