

BioAccessibility Research Canada (BARC)

Web/Conference Call Meeting

Summary Notes

Tuesday, March 3, 2009



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Canadian Network of Toxicology Centres
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BioAccessibility Research Canada (BARC)

Web/Conference Call Meeting

Summary Notes

Present: Beverley Hale, Ken Reimer, Mark Richardson, Sanya Petrovic, Andy Rencz, Chris Ollson, Elliot Sigal, Gladys Stephenson, Mike Dutton, Bruce Conard, Joanna Wragg, Viviane Paquin, Iris Koch, Luba Vasiluk, Yvette Lowney, Glenn Ferguson, Theresa Repaso-Subang, Rob Irwin, Matt Dodd, Len Ritter, Donna Warner

Regrets: Nick Basta, Brendan Birmingham, Jim Gilmore, Luigi Lorusso, Paul White

1. Meeting was opened by BARC co-chairs Bev Hale and Ken Reimer. No changes or additions to the agenda were requested.
2. Report on the Pellston Workshop/Setac 2008 on harmonization of soil quality guidelines was provided by co-chair, Bev Hale
 - The working group was charged with addressing issues around exposure characterization including background exposure and the use of probabilistic versus determinate estimates of exposure.
 - The main conclusion of the Working Group is that there are significant sources of uncertainty in many of the exposure parameters including bioaccessibility/bioavailability and improving quantification of their contribution to the TDI is needed to improve estimates of risk.
 - A group discussion followed about the merits of using a probabilistic versus deterministic approach for estimating exposure. Elliot Sigal, Intrinsik, indicated that a probabilistic approach is more broadly practiced in ERA than HHRA because of the lack of good data and methods. Mark Richardson, HC, pointed out that the deterrents to using a probabilistic approach is not availability of methods or good data but the regulatory question that is being asked. Is it safe versus what proportion of the population is at risk? Mark proposed that a workshop be organized around the issue of the phrasing of regulatory questions and the implications for risk assessment.
 - Bev Hale also discussed the contribution that Bioaccessibility can make to risk assessment as both a “confidence tool” and an “inferential tool.”
3. Report on recent BARC activities was presented by Ken Reimer and Viviane Paquin
 - The BARC website will be launched within the next few months along with the release of new risk assessment standardized protocols being advocated by BARC and the risk assessment community. The goal is to have the web site up and running when the pilot organic round robin and the second BARC round robin get underway in June.
 - A 2.5 day workshop on the bioaccessibility of organic compounds was held in Ottawa on February 23-25, 2009. The workshop was attended by Health Canada, Royal Military College, Simon Fraser University, University of Saskatchewan, BARGE members (BGS, Reading University, INERIS, INPL), University of Umea, University of Missouri, Exponent, and Stantec. As an outcome of this workshop, a pilot organic round robin is being planned

- for this summer that will include labs from Europe, U.S., and Canada to establish key method considerations. There was agreement at the workshop that *in vivo* study planning and the identification and acquisition of reference soils with discrete sources of PAHs should start immediately to avoid the delays that were experienced with inorganics. The importance of starting *in vivo* work immediately was reiterated by Chris Ollson, Stantec. Joanna Wragg, BGS, stressed the need for developing benchmark criteria for the dos' and dont's early on as this will garner greater acceptance for what we are doing and how we are doing it.
- Ken pointed out that BARGE has recently established some QA standards for inorganics and proposed that BARC also adopt these standards moving forward with inorganics.
4. Report from Ken Reimer on the BARC CRD proposal
 - Ken reported that the BARC CRD proposal has been put on hold at this time due to the current economic situation which has made it difficult to get sufficient industry funding.
 5. Report from the BARC reference Soils Subcommittee was presented by Andy Rencz, NRCan
 - The committee has been working to identify what types of soil(s) and elements would be of greatest interest to the risk assessment community so that potential sources for one or more candidate reference materials can be identified. Ideally, the source would be a soil with naturally elevated concentrations of metals of interest that are graded around the contaminated site of a mine or other anthropogenic source. A certified reference soil could be obtained through Canmet at a cost of \$150K per soil. A draft of a proposal to Health Canada for the development of one or two reference soils has been initiated, and ESG has agreed to take the lead on completing the proposal for submission to Health Canada within the next few months.
 - Mark Richardson indicated that the operating budget for Health Canada has yet to be determined and could be substantially less than previously anticipated. He suggested that BARC develop a process to rank all of the BARC issues including the need for a Canadian reference material from high to low, and Health Canada will consider this in deciding where to allocate funds. Mark also stressed the importance of making contact with senior management at Health Canada and emphasizing the importance of contaminated sites as a strategic issue.
 6. Report from Chris Ollson, Stantec, on risk assessment considerations for BARC and regulators
 - Chris identified four key considerations that need to be addressed by BARC and Regulators: 1) Inconsistencies in how the terminology around bioaccessibility and bioavailability is used. We need to agree on working definitions of the various terms that are used (relative bioavailability, absolute bioavailability, etc.) so that there is no confusion around what we are actually measuring; 2) The need for standardized protocols on how to properly incorporate bioaccessibility into risk assessment; 3) Regulatory involvement at all stages of the process is needed to ensure a continued dialogue on methodology that supports both scientific and regulatory needs; and 4) The need for detailed toxicological profiles on the chemicals being studied including such issues as animal model, fed or unfed state, dosing mechanism, and toxicology endpoint.
 - Chris suggested that there may be some concern when the BARC round robin report will be released because regulators will not know how to interpret the variability in test results between methods. Ken Reimer indicated that *in vivo* data for NIST 2710, the reference soil used in the round robin, will be available in the next couple of months, and the BARC report

- will not be released until this information is available to validate the *in vitro* results. Mark Richardson suggested that regulators take for granted that measurements are exact. An example of analytical variance that regulators can relate to is needed to give them a better sense of what level of uncertainty is acceptable. For example, uncertainty exists around indoor air measurements but regulators have a high level of acceptance around this uncertainty.
7. Considerations for The BARC inorganic second round robin presented by Ken Reimer and Iris Koch
 - Ken stressed the importance of having *in vivo* data and using this data to help select the methods for the round robin. The timing of the round robin will, therefore, depend on the availability of soils with *in vivo* data. A possible start date would be June 2009 and would involve participation by both BARGE and BARC.
 - Iris talked about the framework for the second round robin. The number of methods would be limited to 2 or 3 in order to focus on controlling the variability between methods. The use of controls will be important and will be defined by the relevant toxicology study. The control methods should be simple enough to be incorporated easily into the methodology.
 - Mark Richardson cautioned against narrowing in on a prescribed method versus a performance standard approach. Health Canada would prefer to see a number of methods that can meet the performance standard. The concern is that focusing in on a prescribed method tends to reduce innovation.
 8. February 2010 meeting
 - Ken Reimer proposed a 3-day workshop be held in February 2010 that would consider all of the available *in vivo* and *in vitro* comparative data and produce, as a workshop outcome, final decisions regarding protocols for inorganic bioaccessibility and bioavailability.
 9. Closing remarks were given by Len Ritter who thanked everyone for their participation.

Appendices (under separate cover)

- A) BARC web conference meeting agenda
- B) Conclusions of the Pellston Workshop/SETAC on Harmonization of Soil Quality Guidelines <Hale>
- C) *In-vitro* Bioaccessibility Testing: Current Science and Way Forward (Environment Agency Science Update 2) <Hale>
- D) Update on BARC Activities <Reimer, Paquin, Olson, Sigal>
- E) Brownfield Briefing, Issue 81, December 2007 (reference document) <Wragg>
- F) BARC Meeting Participants

Agenda

Bioaccessibility/Bioavailability of Metals in Soils – A Workshop to Develop the Path

Forward to Identifying a Validated Method

March 3, 2009 via Web / Audio Conferencing

1:30 – 4:00 p.m. (EST)

1. Introductions
2. Review of Draft Agenda
3. Review conclusions of the Pellston Workshop/SETAC on harmonization of Soil Quality Guidelines (Hale)
4. Update on BARC Activities (Reimer/Paquin)
 - a. Exchange of soils with others to obtain body of *in-vivo* validated soils & 2710 information
 - b. Creation of BARC web site
 - c. Organic Bioaccessibility Workshop: Feb. 2009
5. Reports from BARC Sub-committees
 - a. CRD Proposal – on hold (Reimer)
 - b. Soils Subcommittee – Canadian Soils Collection – preparation of Soils SOP ref. material (Rencz)
 - c. Risk Assessment – standardized protocols (Olson/Sigal)
6. Planning for BARC Round Robin 2 Workshop
 - a. Review of results from Round Robin #1 – now have *in-vivo* data (Reimer)
 - b. Objectives of Round Robin #2 (Koch)
 - c. Possible Date – June 2009 (to be discussed)
7. Other Business (all)
7. Feb. 2010 meeting (Reimer)

Derivation of Human Health Based Standards for Trace Elements in Soils

SETAC Technical Workshop

Sydney, AU July 2008

Breakout Group 2

Canada: Threshold Substances

$$SQG = \frac{(TDI - EDI) \times SAF \times BW}{[(AF_G \times SIR) + (AF_S \times SR) + (AF_L \times IR_S) \times ET_2] \times ET_1}$$

A Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines. CCME 2006.

ISBN-10 1-896997-45-7 PDF

ISBN-13 978-1-896997-45-2 PDF

Canada: Threshold Substances

$$SQG = \frac{(TDI - EDI) \times SAF \times BW}{[(AF_G \times SIR) + (AF_S \times SR) + (AF_L \times IR_S) \times ET_2] \times ET_1}$$

TDI = Tolerable Daily Intake (NO(A)EL/uncertainty)

EDI = Background

Remainder is “Residual Daily Intake” or RDI

SAF = Soil Application Factor (typically 0.2)

Assumes that “air, food, water, contaminated soil and consumer products” are equally important, and that no one source of exposure can consume all of TDI or RDI

Canada: Threshold Substances

$$SQG = \frac{(TDI - EDI) \times SAF \times BW}{[(AF_G \times SIR) + (AF_S \times SR) + (AF_L \times IR_S)] \times ET_2} \times ET_1$$

AF = Absorption Factors (Gut, Skin, Lung)

Can be the “relative absorption factor”, which is the absorption efficiency for the exposure route divided by the absorption efficiency of the study route

Assumed to be 1 for ingestion and inhalation pathways

S/IR = Rate of inhalation, ingestion or contact

Exposure Pathways

INGESTION

- Soil → Plants → Food → Gut
- Soil → Gut
 - Home gardens in contaminated soils
 - Production agriculture food chain
 - Estimates of direct soil ingestion
 - Bioaccessibility of trace elements in ingested soils

ABSORPTION

- Soil → Skin

INHALATION

- Soil → Lungs
 - Household dust vs. outdoor soil particles
 - Bioaccessibility of trace elements on inhaled particles

Soil → Gut

Trace elements that are of concern to human health, particularly when soil → plant barrier is significant, e.g. Pb

Uncertainty in soil (and food) ingestion rates

Replace deterministic with probabilistic values

Bioaccessibility (various *in vitro* assays) vs. bioavailability (*in vivo* quantification)

Absolute bioaccessibility relates soil to highly soluble forms of trace elements

Relative bioaccessibility relates soil to medium used in determination of RfD or slope factor

Charge to the WG

Introduction

- brief review of the uncertainties or alternate approaches that lead to wide range of SCV's for many trace elements relative to human health

Exposure Characterization

Bioavailability/Bioaccessibility (Questions c, d, f, g, h and l)

- for which elements, and by what methods

Food Chain Transfer (Questions b and l)

- “background exposure” captures exposure from foods other than those grown in backyard vegetable gardens at the site in question. It can be a significant proportion of the TDI, reducing the allowable exposure from contaminated soils

Data (Questions a, i, j and l)

- use of deterministic rather than probabilistic estimates of exposure limits the inclusion of uncertainty and variability– can we conclude or recommend the probabilistic determinations be the goal for SQS's? Which elements are sufficiently data rich?

Effects Characterization

Endpoints (Questions m, k and e)

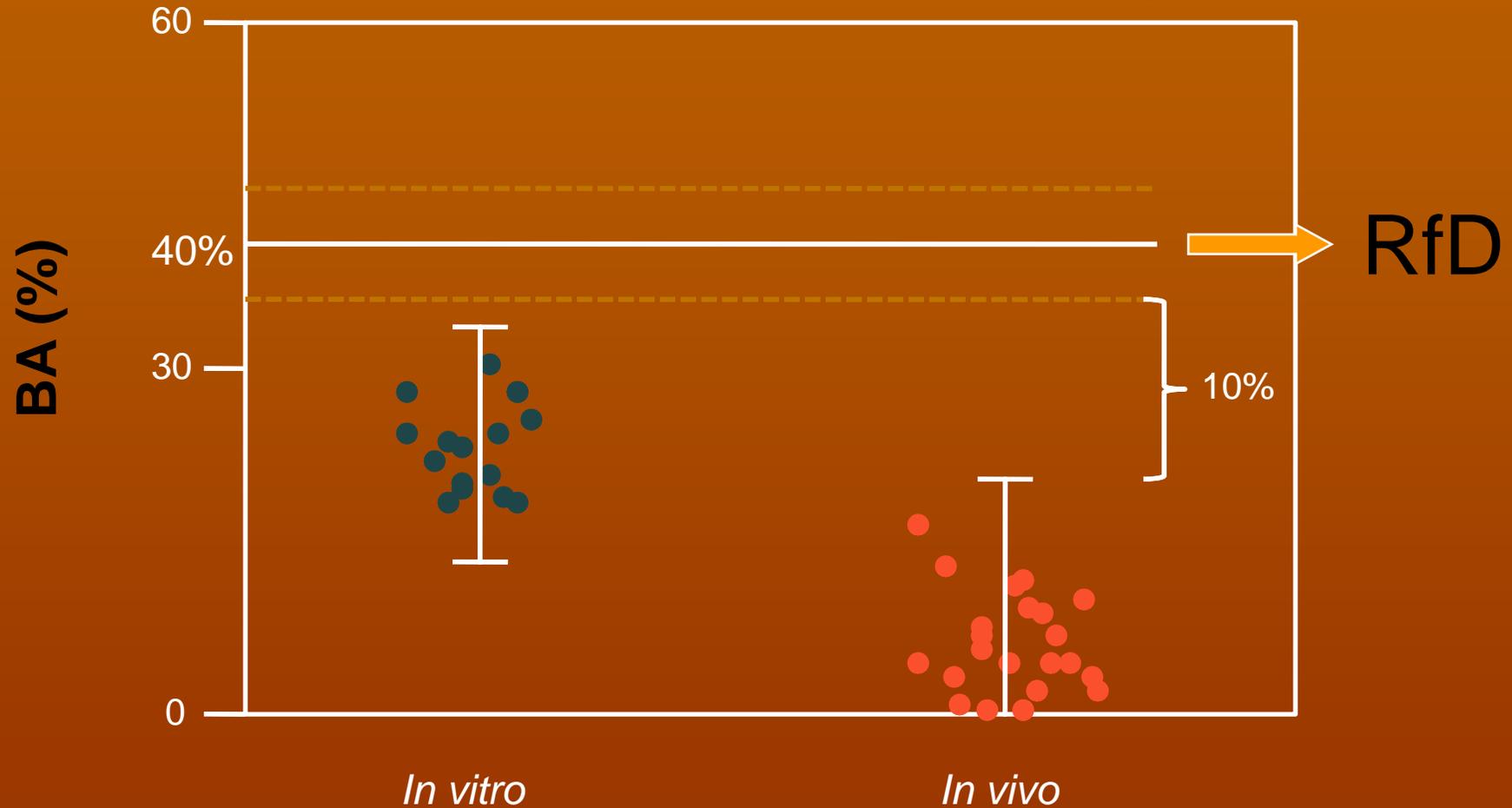
- TDI's are usually interpreted as meaning “without harmful effects”, although in some jurisdictions, they are amended to more closely represent the threshold of effect – is this a significant gap that has the potential for widespread improvement in the validity of SQS's?

Outcomes

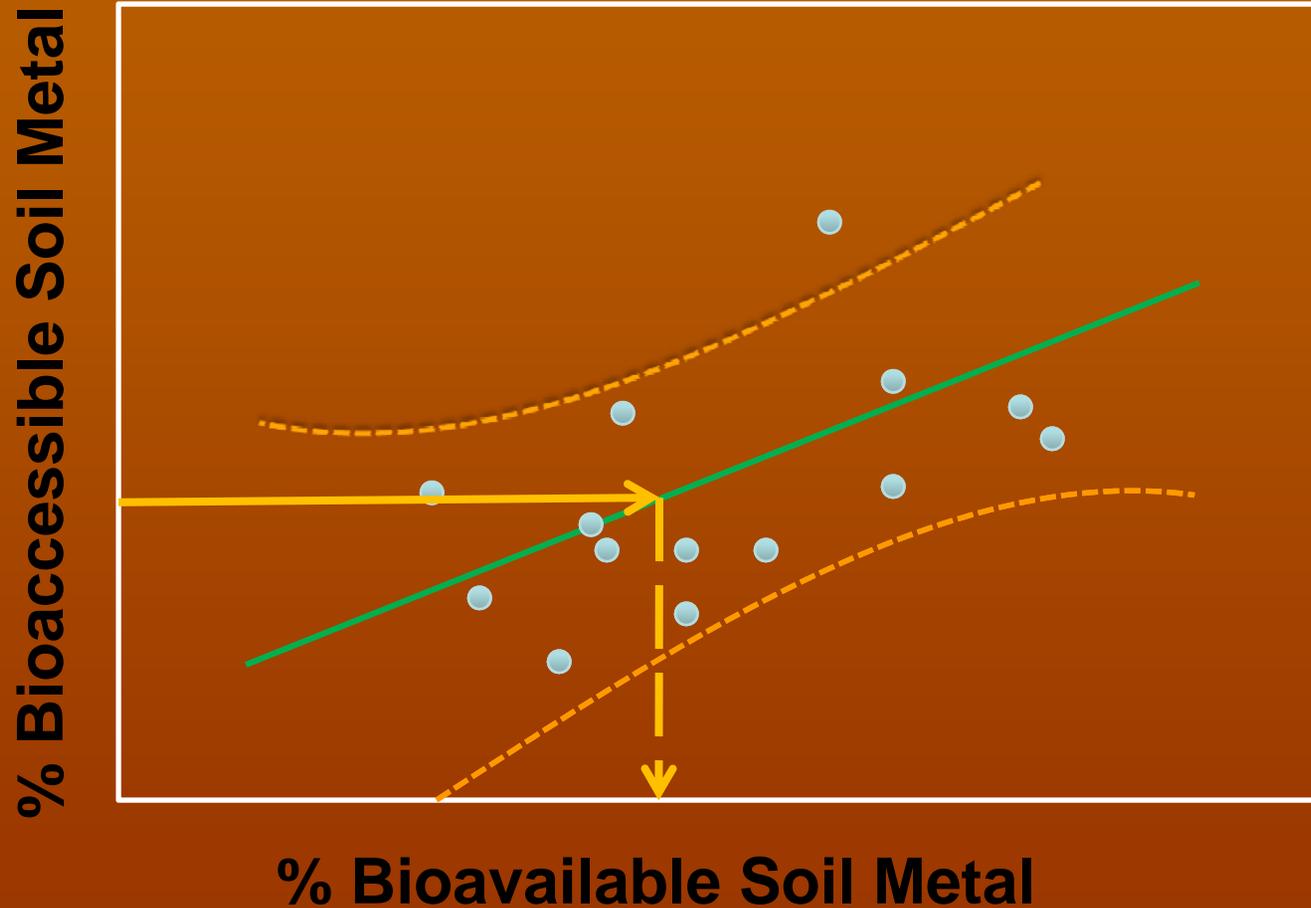
Not feasible to summarize conclusions in today's meeting, as they are quite numerous and actually haven't been agreed to by the group in their final version.

In general terms, however, the group concluded that there were significant sources of uncertainty in many of the exposure parameters, including “bioavailability/bioaccessibility” and that probabilistic approaches had merit for capturing the population of values with the limitations posed by increasing uncertainty and data-poor contaminants.

Risk Assessment Tool “Confidence Building”



Risk Assessment Tool “Inferential”



In-vitro Bioaccessibility Testing: Current Science and Way Forward (Environment Agency Science Update 2)

i) Introduction

We previously published a science update on the potential use of bioaccessibility test results in human health risk assessment of land contamination in February 2005. The document consisted of a review of key research findings on the bioaccessibility testing as well as the position of overseas regulators concerned with land contamination. It included our scientific views on the appropriateness of using *in-vitro* test data as a surrogate of relative bioavailability in England and Wales.

The main issues highlighted in the 2005 update were:

- Bioaccessibility data, when produced by a validated method, could help refine risk assessment on site-specific basis
- There is little information on the variability and uncertainty associated with bioaccessibility testing currently offered by laboratories in England and Wales
- The application of bioaccessibility can only be justified by the provision of a significant body of supporting evidence that the methodology was scientific, robust and reproducible, and that the uncertainties were taken into account in any conclusions.
- Given the current uncertainties associated with bioaccessibility testing, we consider its application to be limited at this time

[The 2005 Science Update is available from the Environment Agency bioaccessibility webpage:

<http://www.environment-agency.gov.uk/subjects/landquality/113813/1283985/>

This second update is to report on progress made since February 2005.

ii) Research development since February 2005

Bioaccessibility workshop in March 2005 in Oxford

We held an international workshop to discuss the 'potential use of bioaccessibility testing in risk assessment of land contamination'. Delegates from various government department/agencies and research institutions based in the UK, Europe and US attended the workshop.

The workshop highlighted many of the challenges, needs and concerns about bioaccessibility test data used in human health risk assessment of land contamination. The scientific community and other national regulatory organisations expressed the view that bioaccessibility test

data must be interpreted with caution. [A peer-reviewed workshop report is available at:

<http://www.environment-agency.gov.uk/subjects/landquality/113813/1283985/?>

Local Authority Questionnaire Survey

We carried out a questionnaire survey with the Local Authorities of England and Wales to capture their experiences on using bioaccessibility testing in risk assessment of land contamination. A report highlighting key aspects of responses is available from our bioaccessibility webpage:

<http://www.environment-agency.gov.uk/subjects/landquality/113813/1283985/?>

The findings of the questionnaire survey indicated that arsenic is a main contaminant of concern in land contamination. Furthermore, half the participants had received bioaccessibility data as part of their regulatory roles and of these, most had accepted the data as part of a risk assessment at some time. Despite the uncertainties surrounding such test data, some Local Authorities had made regulatory decisions using bioaccessibility data. The survey highlighted a need for guidance to be produced on how to generate and use bioaccessibility data in risk assessment.

Review of laboratory bioaccessibility data

In order to aid our understanding, as to whether bioaccessibility data are reproducible between different laboratories, we commissioned a project to evaluate bioaccessibility testing of UK laboratories. Three soil samples with varying levels of arsenic, lead and nickel were distributed to 11 laboratories. Of the 11 laboratories, two were overseas organisations - Dutch RIVM and US University of Colorado.

The study indicated that differences in types of *in-vitro* methods, operating procedures and reporting of results could contribute to a large variation in bioaccessibility data. The applicability of a standard method to different chemical types, forms, concentrations, soil types and land uses *etc.*, is still an issue that needs to be adequately addressed. The absence of reference materials containing a range of *in-vivo* data with which to validate bioaccessibility results also reduces the confidence of the results generated with *in-vitro* methods.

A report summarising the findings is available from bioaccessibility webpage:

<http://www.environment-agency.gov.uk/subjects/landquality/113813/1283985/?>

iii) Research development internationally

The following section highlights the key developments in other countries since publication of our science update in 2005.

US EPA Technical Support Document for lead (Pb)

This report summarises the results of a series of studies in the US to measure the relative bioavailability of lead in a variety of US soils and soil-like materials (number of sample used 19) using both *in-vivo* (juvenile swine) and *in-vitro* techniques (Drexler method: buffered acid solution, pH 1.5).

The study showed that *in-vivo* bioavailability was found to vary between sample materials (from 0-100%). Thus knowledge of the bioavailability value for different types of test materials at a site can be very important in improving lead risk assessment at a site. The study also found a good correlation between *in-vitro* bioaccessibility and *in-vivo* bioavailability for the samples tested. Despite the results from this study, the US EPA position remains unchanged for lead that only the juvenile swine assay (*i.e.* use of swine to produce bioavailability data) can be used for making site specific bioavailability adjustments (US EPA March 2007 *pers. comm.*). No other contaminants, apart from lead, were investigated in the study.

[This report is available from 'Office of Solid Waste and Emergency Response, US EPA, Washington DC']

Danish EPA Report: Test for bioaccessibility of metals and PAH from soil:

The report presents findings of Danish EPA funded series of studies undertaken by DHI Water and Environment.

Ten *in-vitro* methods producing bioaccessibility data were identified. For acceptance in risk assessment, the report highlighted the need for *in-vitro* method to show good correlation with acceptable *in-vivo* data. The study found considerable variability in bioaccessibility results when comparing different *in-vitro* methods for contaminants - cadmium, lead, nickel and PAH. The study adapted the Dutch RIVM method by bringing some changes in test parameters and phases. For lead and cadmium, it recommends the adapted method to predict bioavailability on quantitative basis, and for nickel and PAH on qualitative basis with further variations in test parameters and conditions of the same method. For validation of the method, the study used soil samples from other countries containing *in-vivo* bioavailability data for lead, cadmium and PAH. For nickel, no sample with bioavailability data was available and arsenic was not included in their whole analyses.

[We sponsored for an English translation of this report and this is available from bioaccessibility webpage:

<http://www.environment-agency.gov.uk/subjects/landquality/113813/1283985/?>

RIVM report: How can information on oral bioavailability improve human health risk assessment for lead (Pb)-contaminated soils?
(Oomen *et al.* 2006)

The report is a culmination of seven years of Dutch RIVM findings on the *in-vitro* bioaccessibility test method development for use as surrogate measure of bioavailability for lead in contaminated soils.

The report proposed the adoption by Dutch regulatory bodies (*i.e.* VROM) of oral bioavailability of lead from soil in the procedures to assess soil quality under the Dutch Soil Protection Act. The scientific background of bioaccessibility and bioavailability was described and the RIVM *in-vitro* method was evaluated for lead. Intestine phase of the RIVM method was recommended to produce bioaccessibility data. The data produced from stomach phase were not considered to be physiologically relevant for bioavailability since lead absorption occurs in the intestine. The report made a number of recommendations including provision of guidance for sampling, reference materials, further investigation on geochemistry of soils and their influence in bioaccessibility among others.

US Exponent and University of Florida arsenic study

Exponent is one of the most active research organisations in the US working on *in-vitro* bioaccessibility method development for soil contaminants. Their current focus, in collaboration with the University of Florida, is to develop a simple *in-vitro* bioaccessibility method for arsenic with the data from a parallel *in-vivo* study with *Cynomolgus* monkey. The project used 12 US samples and applied a number of published *in-vitro* methods (*i.e.* 6 methods) including the method US EPA developed for lead. This project is still ongoing.

The results so far indicate that, for arsenic, none of the *in-vitro* methods applied fits well with bioavailability data from monkeys, for all 12 samples. Similarly US EPA lead (Pb) *in-vitro* method fits well for some, but not for all soils.

Summary of Above Studies

The following conclusions can be drawn from international research experiences highlighted above:

- Bioavailability and bioaccessibility and their relationship is specific to method, site, chemical and chemical form being tested
- The applicability of an *in-vitro* method developed and validated for a particular contaminant is uncertain in predicting bioavailability for other contaminants
- No reference materials, either in the UK or overseas, associated with *in-vivo* bioavailability data, are available to assess the validity and reproducibility of *in-vitro* method
- Geochemistry of soil is likely to play a major part in governing the dissolution and bioavailability of chemicals in biological receptor such as human. However, with the current limited knowledge, geochemistry-based prediction of bioaccessibility and bioavailability is unlikely to be appropriate

iv) Knowledge gaps for England and Wales

***In-vivo* and *in-vitro* correlation**

Evidence of a strong correlation between *in-vitro* bioaccessibility and *in-vivo* bioavailability data for different soil types is considered as key condition for acceptance of *in-vitro* bioaccessibility method in human health risk assessment (Environment Agency 2005, Grøn 2005, US EPA 2005, Saikat 2006, RIVM 2006). This is needed to provide confidence in *in-vitro* method and a scientific justification for incorporation of data as alternatives of current default values into risk assessment modelling. This is also required to assess and screen current and future *in-vitro* methods, and to allow their further assessments for sensitivity, robustness and reproducibility analyses.

In the UK, two main *in-vitro* methods are used (*i.e.* modified PBET and buffered acid solution) to produce bioaccessibility data (Environment Agency 2007). Neither of these methods were specifically designed for producing bioaccessibility data for arsenic. Their applicability to contaminants like arsenic was found limited (Rodriguez *et al.* 1999, Lowney *et al.* 2005). From the information available, none of the UK laboratories have evaluated any of these methods against *in-vivo* studies for any UK soils. This raises the question as to the validity of the data provided by UK laboratories and their use in risk assessments.

Bioaccessibility/bioavailability is method dependant and also specific to contaminants and soil types

The studies undertaken by the US EPA with 19 samples indicated that lead bioavailability varies from 0 to 100% reflecting the influence of soil types. Considerable variability between the samples and methods was also observed in the Environment Agency's bioaccessibility project (Environment Agency 2007). A method developed for a particular contaminant may not necessarily be satisfactory for another contaminant (Grøn 2005, Lowney *et al.* 2005, US EPA 2006 *pers.*

comm.). However, our findings indicate that laboratories in the UK use same *in-vitro* method irrespective of the metal, metal concentration and matrix. This question's the quality of data produced in the UK and suggests the need for a careful evaluation.

Applicability of method developed elsewhere

There is likely to be an expectation from stakeholders in the land contamination community that *in-vitro* methods developed outside the UK are applicable for UK soil types and contaminants (Environment Agency 2006). However, no proper evaluation has been undertaken to assess whether UK soils are similar to those used overseas for *in-vitro* method development. If the soils are dissimilar, the differences could influence the relationship between bioaccessibility and bioavailability. The experience of other countries indicates that the applicability of an *in-vitro* test method for a wide range of soil types is still unknown.

v) Way forward

Establish scientific justification of *in-vitro* method(s)

Direct approach

***In-vivo* Studies**

In-vivo studies with suitable animal models (as surrogate of humans) are being employed in other countries to develop *in-vitro* methods. Without similar effort in the UK there is little scientific credibility in undertaking *in-vitro* method development and validation of existing *in-vitro* methods in the UK. However once an *in-vitro* method is developed in conjunction with a carefully designed *in-vivo* study, this would reduce the need for any further animal studies in the long term.

Use of human volunteers *in lieu* of animal models to measure arsenic bioavailability

In-vitro methods can be developed and/or validated by using human bioavailability data. This requires volunteers willing to ingest contaminated soils (e.g. arsenic contaminated soils). This type of study is not completely new and was performed in the US for lead in soils (Maddaloni *et al.* 1998). Finding volunteers for this type of study, however, may not be easy.

Indirect approach:

Uptake study

An uptake study for arsenic would comprise measuring arsenic uptake in people living in arsenic elevated areas of England and Wales. This study would have following elements:

- determination of chemical (e.g. arsenic) concentrations in urine of local resident
- determination of total chemical (e.g. arsenic) in soil and the solid-phases it present
- determination of *in-vitro* bioaccessibility in soil
- questionnaire survey to address the effect of confounders

Using this information, assessments could then be made of types of correlation between uptake, total metal content and bioaccessibility determination. This would provide reasonable information about the validity and appropriateness of currently available *in-vitro* methods.

Once a scientifically credible *in-vitro* method can be found, guidance could be developed for i) validation and acceptance criteria, ii) sampling protocol and iii) how to use the data in risk assessment modelling. This could be a generic technical support document or, more preferably, as a chemical specific technical support document.

Summary of issues

Our review on the current status of *in-vitro* testing in England and Wales support following key conclusions:

- There is a growing interest in the use of *in-vitro* data in risk assessment of land contamination in England and Wales. The need for regeneration of areas, identified as contaminated, may further increase interests
- The reliability of current *in-vitro* methods in predicting bioavailability is uncertain in the UK. Those using the data are unlikely to be fully aware of the importance for validation of *in-vitro* methods. Therefore, there is a lack of user-driven research for *in-vitro* method development and validation in the UK.
- There is no method that has been accepted as standard for contaminants *i.e.* arsenic. Laboratories in the UK use same method irrespective of metals, metal forms, soil types *etc.* These raise question on the validity of data produced and therefore scientific relevance of using these data in risk assessment

- Any initiative to develop and/or validate *in-vitro* methods would need to be sensitive to ethical issues regarding animal testing in light of science needs.

References:

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Maddaloni M.A. 1998. Bioavailability of soil-borne lead in adults, by stable isotope dilution. *Environmental Health Perspectives Supplements*, Vol. 106(S6): 1589-1594.

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4. Update on BARC Activities (Reimer/Paquin)



-
- a. Exchange of *in-vivo* validated soils
 - INERIS has carried out some *in-vivo* experiments
 - Providing ESG with samples (As, Pb, Sb, Cd)
 - If sufficient quantity, may be candidate soil(s) for next Round Robin in addition to a Canadian Reference Soil

 - b. Creation of BARC website
 - Domain bioavailabilityresearch.ca has been secured (thanks to Mark Richardson)
 - Launch date TBD (see item 5c)



4. Cont'd



c. Bioaccessibility of organic compounds workshop (23-25 Feb 2009)

- attended by HC, RMC, SFU, USask, BARGE members(BGS, Reading U, INERIS), Umea, U Missouri, Exponent, Stantec
- Objective was to establish short, medium and long term goals for advancing science of bioaccessibility for organic compounds

Key findings:

- PAHs are the priority with PCBs as a possible study surrogate;
DDT
- Early Pilot Round Robin to establish key method considerations
- Need to identify and acquire soils of different types and with discrete sources of PAHs
- In vivo study planning to start immediately
- Good but not perfect methods are sought (need to be practical)
- Initial *in-vitro* methods to include established methods and “sponges”



5. *Reports from BARC Subcommittees*



-
- a. CRD proposal (Reimer) – shelved
 - b. Soil subcommittee (Rencz)



RISK ASSESSMENT QUESTIONS



c. Risk Assessment (Olson/Segal)

Considerations for BARC and
Regulators



The Need to Involve Risk Assessment Community



A need was identified at the last BARC meeting and in our experience of attempting to incorporate bioaccessibility into risk assessments, to better define:

- a. terminology and its use in Canadian context
- b. worked example calculations and their proper incorporation into human and ecological risk assessment.
- c. discussion of issues that need to be resolved with regulatory authorities (e.g., lack of validation, lack of agreement on standard method, etc..).
- d. based on discussions with BARC provide detailed toxicology profiles of chemicals being studied; including such issues as animal model, fed or unfeed state and toxicology endpoint.



Timelines and BARC Input



Not much progress has been made on this issue since last BARC meeting.

Need to ensure that the objectives that we see are consistent with BARC goals.

Please provide feedback on issues BARC would like considered and specifically which chemicals are being addressed.

Elliot Sigal and Chris Ollson then to prepare a timeframe to address and report back to BARC by April 1, 2009.



6. *BARC Round Robin 2* (*Reimer/Koch*)



-
- a. Review results from Round Robin 1 (Reimer)
 - Participants from organic workshop thought a valid exercise. Results show that the same method can be run successfully by several labs.
 - Acquiring *in vivo* data for 2710
 - b. Round Robin 2
 - Soils that have *in vivo* data
 - Use *in-vivo* 2710 data to help select methods
 - BARGE and US participation
 - c. Possible start date – Jun 2009
 - Timing will depend on availability of soils



7. Other Business





8. February 2010 Meeting (Reimer)



Proposed: Joint BARGE/BARC three day workshop to establish protocols for *in-vivo* and *in-vitro* testing (Target: Feb 2010)

Day 1: Present comparison of *in vivo* US EPA and France results for NIST 2710 (and other soils where comparative data is available)

- Discuss and decide on *in -vivo* models and protocols

Day 2: Present comparison of *in vitro* data by ESG, BGS, France and U.S. with *in vivo* results for NIST 2710; results of Round Robin 2 etc.

- Discuss and decide on *in-vitro* methods and protocols

Day 3: Present results of second BARC round robin

- 'Final' decisions regarding protocols for inorganic bioaccessibility and bioavailability

MPs give Planning Bill a hostile reception

The House of Commons has given the Planning Bill a second reading, but a range of objections, many of them from Labour MPs, indicates it faces a stormy passage through committee.

Communities secretary **Hazel Blears** said the Bill would make the planning system fairer, more efficient and ready to equip Britain for 21st century challenges. There is plainly substantial doubt it will make things fairer and MPs of all parties queued up to question the Government's belief that the planned infrastructure planning commission will have the necessary accountability. But Ms Blears exuded confidence.

"The Bill will reform the planning system to make it fairer, more efficient and ready to equip Britain for the challenges of the 21st century," she said. "It will speed up decisions on major projects that are vital to our economic future."

Other than ministers, the view had few takers, however. Sherwood's Labour MP **Paddy Tipping** spoke for many.

"Given that the Secretary of State rightly spoke about the importance of Labour planning policy as a way of delivering social change, does she understand the concern of many of us that the infrastructure planning commission will be removed from

democratic control?" he asked.

Many MPs raised similar concerns and the working of the community infrastructure fund's working and cash distribution was also questioned.

The **Campaign to Protect Rural England** welcomed proposals for national policy statements but said three major concerns remain with the Bill. These include its relationship with strategic environmental assessment which lacks a reference within the Bill. Its main concern is that the infrastructure planning commission is still going to be making undemocratic decisions and is likely to be far more costly than the present system.

"The cost would actually shoot up through the roof," said planning campaigner **Paul Miner**.

CPRE (and some MPs) is still concerned at the lack of third-party rights of appeal and cited the Dibden Bay application as demonstrating the vital need for third-party input.

► <http://www.publications.parliament.uk/pa/cm200708/cmhansrd/cm071210/debidx/71210-x.htm>

Planners foresee planner-led future

The **Royal Town Planning Institute** has launched an unprecedented attack on environmental groups for not supporting the Planning Bill which it says would speed up delivery of vital green infrastructure.

It said the national policy statements would offer a window into government carbon dioxide reduction commitments. And the independent planning commission would deliver "green infrastructure" more quickly.

"Green groups are missing a trick by not supporting this legislation," said director of policy and communications **Rynd Smith**.

The Institute said that the Bill's opponents run the risk that the UK could

lose "its only real opportunity to renovate its infrastructures to meet the climate change challenge in a relevant timescale". It said the proposed agencies and commitments would have to pass a series of tests including community involvement but the Bill should be supported. It conceded, however, that sections of the Bill would need amending.

One sceptic noted that, if the independent planning commission were established, it would mean decision-making by experts and professionals.

"It would be a great career opportunity," they said.

► <http://www.rtpi.org.uk/item/1372/23/5/3>

► www.brownfieldbriefing.com

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POLICY

Gateway brownfield target will only last three years

The long-awaited *Thames Gateway Delivery Plan* has committed the growth area to its 80% brownfield housing land target – but only for three years - and to remediation of 2,000ha of land.

The *Plan*, launched against a barrage of concern about lack of central co-ordination and direction for the Gateway, is heavy on justification of performance to date and less clear about exactly where it is going. But it says, by 2016, there will be 160,000 additional homes, 225,000 new jobs and a major step change in the public transport provision. "We have already achieved a great deal but we must raise our ambitions and go further and faster," said house building minister Yvette Cooper. "We've now set out plans and money to do so."

The Gateway will now be an "eco region" featuring an "eco quarter" which may be part of the Government's "eco towns" programme. It says more will be spent on flood defence, the Gateway will aim to be "water neutral" and to generate zero construction waste.

But, despite widespread criticism of lack of central co-ordination and development, it offers no proposals for reform and simply sets out the way the recently established cross-government board will work

► <http://www.communities.gov.uk/documents/thamesgateway/pdf/565039>

DEFRA faces massive financial battering

DEFRA permanent secretary Helen Ghosh has confirmed that her Department has a £115m overspend this year and faces £300m cuts over the next three years beyond its comprehensive spending review settlement. She was summoned before the Commons Environment, Food and Rural Affairs Committee following a series of press leaks and confirmed DEFRA is cutting £130m, plus a possible further £140m, from its own budget and £30m from other programmes.

She said a series of crises has hit, including farm payments, foot-and-mouth-disease, blue tongue and avian flu and another £100m commitment had been dropped on her Department to fund the greener homes advice service that Gordon Brown committed to recently. The Department is heading for a £50m overspend on its £269m budget and had so far only identified £10m savings. Like the sudden mid-year cuts imposed by the Treasury in the summer of 2006, the damage is likely to spread to DEFRA's quangos.

► <http://www.defra.gov.uk>

Agency Bill threatens increase in greenhouse emissions

The new **Homes & Communities Agency** risks increasing the level of greenhouse emissions thanks to its new homes increasing car mileage and other emissions and mitigation measures will be needed to reduce this damage, the Government has admitted.

The admission comes in the *Impact Assessment* which accompanied publication of the Housing and Regeneration Bill which will set up the new body. It says the new Agency policies will increase emissions because:-

- more homes built to accommodate more single-person households will increase emissions, although new homes will be more energy efficient;
- the new homes' location will increase car use unless they have good public transport and people work near their homes;
- construction uses energy.

It says, however, that replacing old and inefficient homes with new ones may reduce emissions.

The Bill would give the secretary of state powers to strip planning powers from the democratically elected planning authority

anywhere in England and hand them to the HCA to increase building.

The Government will also only make local authorities statutory consultees on the regional spatial strategy when this function is transferred to unelected regional development agencies and folded into their regional economic strategies. When the end to democratic control was first announced it was hinted that local authorities would retain a measure of control. Clause 18 of the Bill just requires the RDAs to seek the advice of the local authorities within the region.

The **Local Government Association** welcomed plans to create a Homes & Communities Agency but warned that the "eco towns" the Government wants to build must be properly located.

"The total carbon impact, including from transport, should also be taken into account," said Environment Board chairman **Paul Bettison**. "It is vital new developments include services that minimize the need for unnecessary travel."

► <http://www.communities.gov.uk/housing/strategiesandreviews/housingandregenerationbill/>

Professional recruitment worries intensifying

The construction sector is suffering worrying levels of recruitment of professional staff and there are signs the problem is going to get worse, according to new research.

The **Construction Industry Council's** Professional Services Survey found that the construction professional services sector, which includes engineering, architecture and surveying, currently employs about 270,000 people and needs 12,000 competent new professionals every year. And things could get worse because 20% of the existing people are set to retire in the next 10 years.

The survey found that 70% of firms in the sector believe a shortage of recruits is a problem and 74% of them have found job applicants tend to lack the necessary skills. Over 50% of firms anticipate recruitment difficulties over the next year and all report some recruitment difficulties. Between 40 and 53% now have hard-to-fill vacancies.

"This research demonstrates the value of the contribution made to the UK economy by professional services and emphasises the scale of the professional input necessary to support the current levels of UK construction activity," said CIC director of skills **Mark Way**. "The lack of a whole range of key skills in recruits is of real concern; a problem compounded by a future shortage of potential recruits."

Firms found low numbers of applicants with appropriate skills and the employers also believe the quality of graduate-level, part qualified members of professional institutions or people trained to other levels have all declined. The skills shortage is most noticeable in building services engineering firms.

The research is based on two surveys covering 1,157 of the UK's 27,950 professional firms.

► <http://www.cic.org.uk/newsevents/PR-Qualityandnumbersofprofessionalrecru.pdf>

House builders get Calcutt boost...

The Government has accepted key recommendations from the Calcutt Review which aims to speed up house building on public land.

John Callcutt, the former chairman of **English Partnerships** and chief executive of house builder **Crest Nicholson** was commissioned by **DCLG** to consider how the supply of housing could be increased whilst achieving high level of environmental sustainability. He said that 240,000 new homes a year by 2016 was achievable and there was sufficient land "but a smooth trajectory of land was required to guarantee supply over an extended period," he said.

In her response, house building minister **Yvette Cooper** said the Government would introduce "fast track contracts" to help speed the development of new homes on public sector land.

"The Government wants to see faster building targets for developers on suitable disused public land when agreeing contracts," she said.

Rather than tendering out parcels of land to different house builders, Mr Callcutt suggested councils should have one tender process for a large amount of land or an area and the company, or possibly a consortium of housing associations,

management companies and financiers, would be given preferred developer status. The report highlights the example of north Solihull where the Council signed a 15-year agreement with **Bellway Homes** and **Whitefriars Housing Group** to build 8,700 new homes and refurbish 12,500 existing homes. The long-term agreements would allow the local council to plan the infrastructure alongside the range of service providers, suggested Mr Callcutt. He called on the Government's new **Homes & Communities Agency** to support local authorities in developing further partnerships by providing training in planning, commerce and the law.

House builders and developers should also be required to declare the extent of their landholdings in their published financial reports, urges the report.

Small and medium-sized housebuilders should be given increased opportunities to take on schemes to encourage greater competition and improve quality, says Mr Callcutt. He suggests that guidance on the implementation of **PPS3** should require that at least 10% of sites are between 10 and 15 homes.

► <http://www.communities.gov.uk/publications/housing/thecallcuttreview>

... while Government moves straight to implementation

The Government was quick to welcome the findings of the Calcutt Review and announced that five major reforms would proceed without further consideration.

Yvette Cooper said it was part of the drive to speed delivery of greener, affordable homes for first time buyers and families. She said the Government would:-

- introduce a new legal definition of a "substantial start" on house building;
- introduce fast-track contracts for new homes on public sector land;
- set up a new body to monitor and coordinate work on "zero carbon homes";
- look at annual independent house buyers' customer satisfaction surveys;
- introduce a new industry standard for transparency of developers' land holdings.

English Partnerships welcomed the recommendations and said the expansion of house building is the right time to stress the importance of quality and sustainability,

as well as capacity and the importance of leadership from the Government and public sector.

"This report, then, comes at exactly the right time," said director of corporate strategy **Trevor Beattie**. "It builds on much that English Partnerships is already doing and points the way to so much more."

But the **Campaign to Protect Rural England** warned that a renewed commitment to an urban renaissance is needed. Instead of the 60% brownfield target now being brushed off again by ministers, policy director **Neil Sinden** said a 75% target is needed by 2011 to stimulate brownfield regeneration.

"We need to do more to extend the benefits of urban renewal throughout our large conurbations and to those towns still in need of investment and renewal," he said.

► <http://www.communities.gov.uk/news/housing/554602>

POLICY

Olympic budget break down confirmed

The Olympic Delivery Authority has confirmed its budget, first announced in March, which puts the total cost of site preparation and infrastructure at £1,653m + £289m VAT.

Olympics minister **Tessa Jowell** told the Commons the ODA has provided a more detailed breakdown of the £9.325bn budget in line with National Audit Office recommendations. She said the ministerial funders' group has now agreed the baseline budget which includes £2.009bn for contingency.

"It is recognised that regenerating a 500 acre park to stage a great Olympic and Paralympic Games, as well as providing the underlying infrastructure so that long term legacy benefits can be achieved, involves managing significant risks," she said. "This is the reason why the Government included a prudent contingency in the March announcement."

The site and infrastructure budget breaks down (with VAT added) as utilities £255m, enabling works £364m, roads and structures £830m, Prescott Lock upgrade £5m and other infrastructure including landscaping £206m.

"While it is a relief that the budget has not breached the benchmark of £9.3bn, this has to mark the end of handouts from lottery good causes being used to pay for cost overruns," said Liberal Democrat Olympic spokesman, **Tom Brake**.

► http://www.culture.gov.uk/Reference_library/Press_notices/archive_2007/dcms_TJ-odabaselinebudget_10dec07.htm

Specialists' long wait for payment

Specialist contractors are waiting longer than ever to get paid and the outlawed practice of pay-when-paid is continuing to significantly affect the specialist sector.

The latest National Specialist Contractors' Council state of trade report says the number reporting payment periods of 60-90 days rose sharply in the third quarter from 5% to 21%.

"Our state of trade survey highlights the problems faced by specialist contractors and provides evidence that payment periods within the industry are lengthening," said NSCC chief executive **Suzannah Nichol**. But the survey also bucked other recent trends by finding that firms reporting difficulties recruiting skilled labour has fallen from 26% to 17%, back to 2006 levels. But skill shortages are still preventing one in five specialist contractors bidding for work.

► <http://www.nsccl.co.uk/documents/SpecialistContractorscontinuetosuffer-Paymentdelays.pdf>

CONTAMINATED LAND

CIWM/WAMITAB 'working with remediation industry'

The Chartered Institution of Wastes Management and WAMITAB are working with the land remediation industry to set up a working system for technical competence for April 2008, according to a CIWM spokesman.

In recent presentations CIWM said the joint proposal for technical competence in the fourth permitting consultation is:-

- proportionate;
- offers choice;
- based on national occupational standards;
- offering continuing competence;
- straight-forward to regulate;
- sustainable – new awards can be added.

The 4th EPP consultation contained two possible systems: CIWM/WAMITAB – joint proposals for reform and the more radical Environmental Services Association/EU Skills system.

CIWM/WAMITAB stress that Government guidance on waste technical competence refers to one or more approved schemes and approved schemes work with operators and regulators. It says there is broad support for a common system for waste and PPC and a more risk-based and proportionate system not "one-size-fits-all". It says there is support for waste operator competence and some continuing professional development.

The CIWM/WAMITAB system is based around three tiers of risk and proportionate training and qualifications according to the risk, for example, six units of NVQ for medium-risk and four for low-risk. It also contains "continuing competence", with different modes of learning over a two-year period, which will be examined. The ESA/EU Skills system is based around corporate competence based on individual competencies. An industry standard will be developed and audited and nominated roles will be developed.

Scottish special site budget

The Scottish Environment Protection Agency expects revenue expenditure of £115,157 on special site remediation over the three years 2008-11 and no capital expenditure on them over this period, according to figures presented to its board meeting on 11 December. The report followed announcement of the Scottish Government's three-year budget which will see SEPA receive £113m in revenue grant-in-aid and £15m capital. Scotland has only recently designated special sites.

► <http://www.sepa.org.uk/pdf/board/agency/2007/1112/item9.pdf>

DEFRA's staff leave en masse

DEFRA's Contaminated Land Policy Branch is losing all three of its experienced staff thanks to the Department's financial crisis and its trawl for voluntary redundancies, but it is making assurances that all will be replaced with new staff members.

Seth Davies, Trevor Jones and Steve Griffiths have all accepted the offer of voluntary redundancy which has been issued around the Department following its continuing financial difficulties. Their decisions follow the transfer of the Branch from the Local Environmental Protection Division to the agriculture-dominated Environmental Land Management Division which has prompted industry concern (*BB*, November 2007).

A DEFRA spokeswoman confirmed that all three would have left by the end of December, but said two replacements had

already been appointed and all three posts would definitely be filled.

The move leaves the Branch short of experience on land contamination although it is understood it can still call on the experience of LEP chief, Sue Ellis. Mr Davies has already been replaced by Tom Coles who already works in the ELM Division.

An obvious early concern is the *Way Forward* process which is moving towards a conclusion more than two years after *CLAN2/05* created a significant hiatus in contaminated land regulation. *BB* understands that most of the work has been completed and that it is hoped the published timetable for publication of work will be met. The first publication is likely to be the statistics guidance which is virtually complete.

Special site status for Sunderland landfill

The Environment Agency is likely to designate a former landfill at Ryhope which is contaminating groundwater as a special site when Sunderland City Council determines the site shortly.

Halliwell Banks landfill has been causing concern for Durham's heritage coast for some time and investigations into the degree of contamination have been carried out by the Council, the Agency and Natural England. They have concluded there is significant pollution of the magnesian limestone strata and the North Sea by mineral oil and other hydrocarbons. The Council is moving towards determining the site and the Agency is likely to follow suit

with designation.

"Our officers have worked closely with the council and given advice to them about the risk of pollution to groundwater and the North Sea from the Ryhope site," said an Agency spokesperson. "Based on our comments, and those from other consultees, the Council is currently in the process of identifying if the site meets the definition of contaminated land. If it is determined as contaminated land, it is likely to be designated as a special site".

► <http://www.sunderland.gov.uk/public/editable/themes/citycouncil/committee-minutes/EastSunderlandAreaCommittee/agenda/07.11.26.pdf>

Institute will meet EIC on numbers

The Chartered Institute of Environmental Health has agreed to meet the Environmental Industries Commission to discuss the group's proposals for a wider range of contaminated land assessment numbers.

The EIC is keen (*BB*, October 2007) to supplement the numbers produced by the CIEH and LQM last year but there have been misgivings in the local authority sector about an industry body producing its own regulatory material. Nevertheless the Institute has agreed to the meeting despite

its support for DEFRA's *Way Forward* process as there are continuing concerns about disagreements within central government and the likelihood that the new soil guideline values are unlikely to cover many contaminants in the foreseeable future. Only a handful of SGVs ever got published by the Environment Agency and that number is not likely to be exceeded with the new SGVs for a considerable time, if ever. Although anyone can use the CLEA model to generate their own numbers, too little guidance can create problems of variability.

Avenue Coking Works remediation given planning consent



East Midlands Development Agency. Most material would be reused on site, but an estimated 61,000m³ would need off-site recycling or disposal. Around 23ha of the site is intended to be a development platform, the subject of future planning applications.

The environmental statement says that, if no action were taken, the site would be determined under Part

Derbyshire County Council has given planning consent to the remediation of The Avenue coking works site at Chesterfield and its reinstatement as open space and a development platform.

The move will allow the main remediation work to proceed at what has become a national demonstrator site for land remediation technology. The works, which closed in 1992 and has since been demolished, left massive multiple contamination including lagoons and a waste tip.

The work will see excavation of around two million cubic metres and remediation of two silt lagoons, an asbestos tip and land contamination and the proposals approved include several remediation technologies including thermal desorption, aimed at retaining material on site, ex situ bioremediation, concrete crushing and grading, screening and soil washing and borrow pits. Extensive conditions are proposed.

The 78ha site is owned by English Partnerships and managed by the

2A and a remediation notice served. There would be continuing pollution problems.

Extensive consultations took place before the decision, with the **Health Protection Agency** in particular recommending a range of detailed conditions. These included a dust management plan and portable monitoring on and off-site. It also recommended that the applicant should ensure that measures to prevent the migration of VOCs should not be limited to the working day.

The application was submitted by Entec on behalf of the **Consortium VSD Avenue** which includes **Volker Stevin**, **DEC** and **Sita Remediation**.

"There are very few sites that offer the challenges The Avenue does," said Volker Stevin business development director Alan Gerrett.

► http://www.derbyshire.gov.uk/council/meetings_decisions/meetings/regulatory/regulatory_planning/19112007_regulatory_planning_and_control_committee.asp

CONTAMINATED LAND

Waste moves nearer becoming a resource

A new comprehensive code of practice to allow sites to use waste as a resource is in preparation and should be available in March.

The new code will aim to meet one of remediators' biggest concerns and is being managed by CL:AIRE. It will involve the Environment Agency, English Partnerships, the Soil and Groundwater Technology Association, Home Builders Federation and Environmental Industries Commission. It should align waste requirements with CLR11, provide practical examples using a "lines of evidence approach", allow sites to receive waste materials without a waste permit and reduce blight on contaminated sites. But until then, existing guidance will apply.

The industry has been lobbying for further guidance since the Agency published *The Definition of Waste: Developing Greenfield and Brownfield sites* in April 2006, as a result of conditions and caveats it contained

To be allowed to regulate its own activities, the Agency believes the industry must develop and manage an independent system giving confidence that:-

- specified materials stay on site and appropriate quantities are used;
- materials leaving sites go to appropriate destinations;
- correct treatment is given;
- destination sites need the material in the quantities proposed.

► http://www.claire.co.uk/index.php?option=com_content&task=view&id=107&Itemid=28

Nancekuke investigations draw a blank

The Ministry of Defence has been showing politicians and members of the public around the former Chemical Defence Establishment Nancekuke tips where £4m of site investigation work has revealed asbestos waste and only the barest traces of chemical warfare agents.

Despite widespread fears that the five dump sites contained extensive hazardous chemicals, the only real hazardous waste encountered was asbestos. There are traces of hydrocarbons, heavy metals and solvents typical of many industrial sites and a few traces of breakdown products of chemical agents at such low concentrations they are rated minimal risk.

► <http://www.mod.uk/DefenceInternet/AboutDefence/WhatWeDo/DefenceEstateandEnvironment/Nancekuke/NancekukeRemediationProject.htm>

Another Pirbright soil problem

Witnesses have told the **Cabinet Office's** inquiry into the 2007 foot and mouth disease inquiry that the second wave of cases was caused by people selling contaminated soil from the Pirbright site as topsoil.

Several witnesses, including vets, have made the allegations to the inquiry which is chaired by **Iain Anderson** who also chaired the 2001 outbreak inquiry. At least one of the farmers affected in the second outbreak

believes topsoil spread on adjacent land came from Pirbright.

DEFRA takes the view that foot and mouth virus is not a substance for the purposes of Part 2A although this view has few other takers. A separate inquiry under **Sir William Callaghan** has recommended stripping DEFRA of its inspection role at laboratories handling animal pathogens.

NEWS

Green belt continues to be slaughtered

An average of 10 square kilometres of England's green belts have been lost to urban sprawl every year since 1997, according to analysis of Land Use Change Statistics by the Campaign to Protect Rural England.

The official line is that an annual 845ha is lost to sprawl but the most recent LUCS figures show the real figure is about 1,050ha. They show that even the "rolling green belts" policy – designating fresh undesignated land to disguise the loss of green belt land – is working in the South West, Yorkshire and Humberside and the North East. In other regions it has shrunk despite new designations.

"We welcome the Government's stated commitment to the green belt and the fact that, since 2004, the total area of green belt across England has expanded," said planning campaigner Paul Miner. "But the green belt is there to prevent urban sprawl and protect the countryside next to larger towns and cities. Where it matters as much as how much of it there is. These new figures show that green belt land is being developed at an alarming rate and that the countryside is getting further and further away from the majority of the population."

► <http://www.cpre.org.uk/news/view/451>

Ulster plans proposed

The Northern Ireland Executive has appointed Greg Lloyd, professor of planning at the University of Liverpool, to help prepare proposals for the reform of the planning system. A formal consultation paper will be published in 2008 and this will be preceded by a programme of short-term change through a series of pilot projects. "No aspect of planning will be left untouched in the quest for a more streamlined development plan system, a more effective development control system, improved efficiency of processing and greater certainty about time scales," said environment minister Arlene Foster.

► <http://www.northernireland.gov.uk/news/news-doe/news-doe-291107-foster-sets-out.htm>

Planning appeals

DCLG has set out its response to the views received on planning appeals following the May consultation. It proposes to charge for appeals, establish local member review bodies, correct minor errors in appeal decisions without consultation and enable other changes through secondary legislation.

► <http://www.communities.gov.uk/publications/planningandbuilding/appealprocess>

Brownfield targets undermine housing growth says Government panel

The examination in public for the **East Midlands Regional Plan** has attacked brownfield land targets and called for deletion of major areas of Nottingham's green belt and a significant growth in house building in the region.

The report attacks the regional assembly's proposed increase in the existing RSS8 target of 60% brownfield housing as insufficiently challenging, given that the existing figure is 67%. But the Panel says it has reservations about a policy of this kind which can do no more than set a direction of travel.

"It reflects national policy but it has to be recognised not only that the potential to recycle urban land is limited, if not finite, but that the significant increase in the pace of housing development envisaged by the draft strategy will inevitably involve a greater proportion of development on greenfield sites. In that context we consider it to be a challenging target."

The Panel recommends replacing the policy with a simple statement stating strong preference for use of previously developed land. The attack on brownfield policy is symptomatic of how Government house building targets are undermining its sustainability agenda and the Panel makes clear that a principal reason for its attack on the region's housing numbers is the effect of growth in Northamptonshire as part of the growth area policy.

The Panel says it accepts the **Home**

Builders' Federation argument on what it called the "Northamptonshire factor" where housing provision figures are, it admits, well above household growth projections and accounts for 25% of the region's housing growth. It says Northamptonshire's growth is part of the "sustainable communities plan" and should be regarded as an addition to the region's growth thanks to the strength of growth in the south-east.

The report seeks an additional 435,000 homes over the next 20 years which the **Campaign for the Protection of Rural England** says will mean green belt erosion and extensive greenfield development.

East Midlands Regional Assembly housing, planning and transport chair **Jim Harker** described the Panel report as "disappointing". He said the report is good in parts and confusing in others and the green belt proposals are more radical than anything the Assembly had contemplated.

"It will be interesting to see how the Government responds to this particular recommendation, given the scale of controversy that resulted from the Assembly's own very modest proposals for change in the draft plan which were the result of a considerable amount of work and discussion," he said.

► <http://www.gos.gov.uk/goem/news/panelreportrss/>

► <http://www.emra.gov.uk/files/pr-rss-report51-07.pdf>

New building proposals for Thames heaths

A consortium of local authorities in the Thames Heaths area where the Government's demands for greenfield house building have been stalled by international nature conservation commitments have come up with proposals to get building again.

The **Thames Basin Heaths Joint Strategic Partnership Board** represents the councils in a part of Surrey, Hampshire and Berkshire which has been a major target for greenfield sprawl since the *Strategic Plan for the South East* in the 1960s. Its draft delivery plan, published by the **South East England Regional Assembly**, offers a strategy for meeting the Government's demands for 20,000 new houses by 2016.

Its way around the consequent disturbance to the fragile 8,274ha special protection

area is a proposal that, for developments of more than nine homes, there should be an "exclusion zone" for 400m around the SPA where most house building would be stopped and for a further 4.6km "zone of influence" there would need to be "specific measures" to reduce damage. This would be attempted through provision of alternative green space, access management and habitat management by land owners.

Board chairman **Moira Gibson** said several councils have already put strategies in place to create open space as an alternative to the heath land.

► http://www.southeast-ra.gov.uk/our_work/planning/sust_nat_res/SPA/draft_isdp_consult_final.pdf

Planning Bill splits opinion

The Government's Planning Bill has been published with a promise to increase public participation and help climate change policy – as well as transferring decisions on major projects like motorways, runways and power stations to a new quango to make them quicker.

Communities secretary **Hazel Blears** told the Commons the planning system is still too complex, bureaucratic and inefficient despite extensive reforms, especially for major infrastructure. Lack of clear policy, poor project proposals, an adversarial system and slow decision making mean decision processes taking years.

"These delays, combined with a lack of certainty in the system, can result in high costs for business, prolonged uncertainty and blight for communities and pose a serious threat to UK competitiveness and jobs," she said. "Moreover, delays in the provision of essential infrastructure needed to ensure clean, secure energy and water supplies and decent transport have quality of life implications for everyone."

The Bill will introduce:-

- ministerial decisions on national infrastructure priority;
- an independent commission to take over major project decisions;
- national policy statements;

"The Bill will include significant measures aimed at ensuring that the town and country planning (*sic*) better supports housing growth and climate change," said Ms Blears. These include:-

- a new community infrastructure levy;
- simpler local plans and climate change duties for councils;
- less controls on home extension, micro-generation and tree preservation.

Details of the proposals are included in DCLG's summary of responses to the planning white paper.

The **Royal Town Planning Institute** has given a "broad welcome" to the Bill which will see its members spending less time having to listen to public objections to projects.

The Institute warned, however, that it is a very technical piece of legislation and that real community engagement must not be sidelined. It welcomed the commitment to full debate on national policy statements which should be determined by MPs as they are accountable to their constituents.

"The RTPI is clear there is no valid reason why most aspects of most national policy statements should not be location-specific,

that is broadly indicative of routes or locations," said secretary general **Robert Upton**. "It would be a grave mistake to think that making national policy statements less location-specific will reduce concern or obviate debate. On the contrary, the only sound approach is a transparent approach – full disclosure leading to informed debate."

The Institute welcomed the proposed community infrastructure levy as a means of basing infrastructure finance on local need. It welcomed too plans to speed up the appeals process but warned it would need adequate funding and it is also in favour of groups' right to be heard at the independent planning commission, subject to "robust quality control".

It is also in favour of development plan documents taking account of climate change.

But it said it has no confidence in local member review bodies and will wait to be convinced by the Government when it has laid down the details of how they will work.

The Bill sparked furious opposition from environmental groups representing five million people.

A coalition of no less than 15 major national environmental groups expressed deep concern about the proposals and warned they threaten local communities, democracy and the environment. They say the Government has ignored the response to the planning white paper and made little change to their ideas.

"The decision to press ahead despite these concerns suggests that the Government is not interested in being fully accountable for major decisions," said coalition co-ordinator **Owen Epsley**. "We are also concerned that the right to be heard is limited - hardly encouraging when the planning process should be about listening to and taking account of the views of individuals and communities, and ensuring that all the evidence is fully examined."

He urged MPs to use the debates on the bill to champion democracy, accountability and sustainable development and to sideline proposals that sideline communities and the environment. The Bill's committee stage is expected in the New Year.

► <http://www.cpre.org.uk/news/view/459>;
 ► <http://services.parliament.uk/bills/2007-08/planning.html>; ► <http://www.communities.gov.uk/publications/planningandbuilding/pwpgovernmentresponse>; ► <http://www.rtpi.org.uk/item/1349/23/5/3>

NEWS

Brownfield gloom in West Midlands

Advantage West Midlands has launched the new *West Midlands Economic Strategy* which foresees a growth in derelict brownfield sites and warns they may detract from the region's economic ambitions.

The document is strong on seizing "low-carbon opportunities" but, beyond extolling the virtues of energy efficiency, has little to say about using spatial planning to promote locational efficiency. It proposes a continuation of the region's dispersed economic activity and is cool about the contribution of the brownfield sector.

"The West Midlands has a significant and increasing amount of brownfield and derelict land that is often not attractive for private investment," it says. "Forecast changes in economic structure suggest the number of such sites will grow. Several areas will require focused attention to avoid the risk of such sites detracting from our ambitions."

It admits such sites offer regeneration opportunities and that development should aim to reuse brownfield sites. The report was launched at one of the region's key brownfield sites: the 125ha Longbridge site, and it notes too the importance of the 96ha Wobaston Road site in Wolverhampton. But, although it confirms the importance of Birmingham to the national economy and has dropped support for major road construction, it notes the region's position vis a vis motorways and airports as a key asset.

► http://www.advantagemw.co.uk/Images/WMES_tcm9-9538.pdf

Faster planning

Northern Ireland's Planning Service has launched an initiative to speed up strategically important planning applications. But its chosen method will be a pre-application discussion initiative allowing applicants access to general advice and to allow them to identify key issues before making their applications.

► <http://www.northernireland.gov.uk/news/news-doe/news-doe-041207-planning-process-for.htm>

Plant trees now

Planting 10% more trees in towns and cities could peg city summer temperatures at their present level while reducing their tree cover 10% could see 39°C temperatures by 2080, according to Manchester University research.

► <http://www.forestry.gov.uk/newsrele.nsf/A11ByUNID/B42C6B6182C73554802573910050D32C>

Legislation and regeneration

The government set out key pieces of legislation at the end of last month which are intended to pave the way for a much higher level of house building. **Ben Kochan** reports.

While the *Housing and Regeneration Bill* would create a powerful government body to provide land and funding for the reuse of brownfield and housing development, the *Planning Bill* set out streamlined procedures for the infrastructure of provision and developer contributions towards their funding.

There is general acceptance of the need to boost house building but there are widespread concerns that control is being wrested from local agencies with the creation of strong central public bodies that are not locally accountable.

The planning bill would set up an infrastructure planning commission to take major decisions on the provision of major infrastructure. These would be based on national policy statements setting out government priorities but the commission could take evidence from a wide range of interests. The **Campaign to Protect Rural England** raised serious concerns about the implications for democracy. "We believe that decisions should be left in the hands of democratically elected ministers," urged **Neil Sinden**, its policy director. He was also concerned that the commission would make the planning system less open and accountable. The **Royal Town Planning Institute** said that it was important the commission is seen to be independent.

"It must not be a rubberstamping organization for government," said its policy director **Rynd Smith**.

He also proposed that the national policy statements should be debated in parliament. **Andrew Warner**, spokesperson for the **Royal Institute of Chartered Surveyors** was concerned that the national policy statements should be part of a national framework.

"A framework would supply a link into the regional spatial strategies and provide the bedrock for national policy statements," he said. "Without this map, government policy could ignore regional inequalities, leaving many regions neglected. In planning terms, this policy is like a map without reference points."

The **British Property Federation**

supports the introduction of the commission but it urged that it should be adequately resourced.

"The proposals have the potential to significantly streamline the overly bureaucratic planning system, however the benefits will only be achieved if the commission has the skills and resources needed to make it work," said the federation's chief executive **Liz Peace**.

Community infrastructure levy

As indicated in the planning white paper, the Government has dropped plans for a planning gain supplement and replaced it with a community infrastructure levy, which would be set and managed locally. The *Planning Bill* says that the levy should be set with reference to the infrastructure requirements for schemes but that it would be uniform across a district for particular kinds of developments and there would be thresholds. The Bill leaves it open in terms of how the levy should be calculated, suggesting that the increase in land value as a result of planning permission could be one factor. This means authorities could introduce something similar to the planning gain supplement. The levy should be sensitive to the viability of development and the government will retain the right to intervene if it considers the level excessive.

The initial impact assessment of the bill says: "the value uplift when planning permission is granted may be smaller on certain brownfield sites, in particular those that require substantial remediation." It adds that: "the Government considers regeneration of brownfield land a priority and will be working with the industry to design the CIL so that it does not have an adverse impact on brownfield sites."

It points out that the land value increase accrues to the land owner and so it is expected that the costs of the levy will be passed back to the original landowner through reduced prices for land. The bill would give powers to local authorities to introduce a levy, but further guidance is to be published. The BPF, one of the key opponents of the PGS, says that it will lobby

parliament hard as the bill goes through its committee stages to ensure that the levy is based on the infrastructure requirements of developments and that the benefits stay local.

The Government is seeking to simplify the planning process for the local development frameworks which were introduced under the last set of reforms introduced three years ago. Planning inspectors have approved the core strategies for only 12 draft LDFs out of the 350 being prepared by local authorities. The bill has reduced the number of tests applied by planning inspectors from nine to two which are justification and soundness. It has also opened the way for major revisions of the strategies when major problems emerge during the scrutiny process. **Robin Tetlow**, managing director of the planning

"The proposals have the potential to significantly streamline the overly bureaucratic planning system, however the benefits will only be achieved if the commission has the skills and resources needed to make it work."

Liz Peace, chief executive, British Property Federation

consultancy **Tetlow King Planning** said that the streamlining proposals in the *Planning Bill* were sensible.

"Under the current system, two or three years of work can be put into an LDF strategy and then the local authority has to go back to the start," he said.

The Bill also introduces proposals to make it easier for homeowners to extend their homes. Following a review of householder consents, the Bill says that planning permission will not be required for minor developments such as conservatories or small scale extensions where it is clear they have little or no impact on neighbouring properties.

Householders will be allowed to install

small-scale renewable technologies such as solar panels and wind turbines without planning permission subject to safeguards to ensure there is little or no impact on neighbours. The BPF welcomed these reforms because it would free planners' time to concentrate on more important planning applications, said **Liz Peace**.

New powers

The government's new **Homes and Communities Agency** could get more development powers than the agencies which it will be replacing, under the *Housing and Regeneration Bill* laid before parliament last month.

The bill also set out new powers for local authorities to build housing in partnership with the private sector.

The new agency, which will replace both **English Partnerships** and the **Housing Corporation**, could have powers to develop local plans and give planning permission for developments, as well as compulsorily purchase sites. When presented to parliament, Conservative MPs raised concerns that the Agency would "ride roughshod over local communities and take further powers away from democratically-elected local authorities," according to shadow housing minister **Grant Shapps**. The head of policy at the **Chartered Institute of Housing**, **Merron Simpson**, argued that the new Agency should use its powers sparingly.

"They won't be necessary if the local authorities are operating in an effective strategic role," she said.

Phil Grant, RTPI policy officer, said that the Institute hopes that, where the new powers are used, that there is effective community engagement.

English Partnerships inherited planning powers in the new towns when they were wound down, and has not used them. It has also had CPO powers which have been used to assemble larger sites for redevelopment or to provide infrastructure for development.

The new Agency is likely to use its land-ownership and grant making functions more strategically. According to EP's head of policy **Steve Carr**, it will partner developments, often with local authorities and benefit from the increase in value as sites are redeveloped. He cited the example of

the redevelopment of the council housing on the Kidbrooke Estate in south London where it was working with the **Housing Corporation** and **Greenwich Borough Council**. About £50m was being provided upfront which would then be recouped from the sale of the homes and some would go into a community trust to provide community facilities. The new Agency will be able to borrow up to £2.3m, or up to £3,000m if the secretary of state allows it to do so. It is not expected to be fully operational until April 2009, though a chief executive is due to be appointed before Christmas this year.

The **Local Government Association** is concerned about how the new agency relates to the regional development agencies and local authorities. It is urging that "early consideration must also be given to how the three-way relationship between the Homes and Communities Agency, the regional development agency, other regional bodies and local authorities will be developed and managed to ensure all parties are clear about their roles and responsibilities."

The Agency is to get the power to establish urban development corporations, which could bring it into conflict with the local authority in the area as it will take away their planning and compulsory purchase order powers.

Jon Ladd, the chief executive of the **British Urban Regeneration Association**, said it could lead to a new generation of agencies, which could bring major changes in areas but he warned that they would need to ensure effective community engagement. **Phil Grant** from the RTPI was concerned that the government was turning the clock back to the new town policies of the 1950s which were more concerned about achieving house building targets than creating communities. The Bill will require all housing built after

March 2008 to be rated against the *Code for Sustainable Homes* as part of the home information pack given to buyers. House builders can decide not to rate a home, but this has to be declared in the code certificate.

The initial impact assessment of this Bill says "It is anticipated that this proposal to ensure that new homes have such a rating will increase consumer demand for more sustainable homes and encourage industry to build more sustainable homes, because consumers will place a value on improved sustainability."

The assessment based on figures from the cost consultants **Cyril Sweett** estimates that, to raise the environmental performance of the average new home, would range from £615 to achieve Level 1 to £30,600 to achieve Level 6. (see table). The assessment does point out that achieving the higher environmental performance will mean lower running costs which will bring the typical household savings of between £56-£281 per year.

The bill also introduces new provisions which could allow local authorities to restart house building. Councils could opt out of central government's housing subsidy system and become self-financing. This would allow them to keep the income from council house sales and other redevelopments to finance new projects. Councils could raise private sector funding for new house building, probably in partnership with a developer, and use the rent to service the debt. Housing associations currently have these powers and the Bill envisages that local authorities might use them to develop homes on infill sites on their estates. With the abolition of the Housing Corporation, the Government is proposing to set up a regulator for all social housing, covering both public and housing association homes which is currently being called **OfTenant**.

Table 3: Average additional construction costs per dwelling of Code levels 1-6 (2008 costs)

Code Level	Energy	Water	Other (mandatory plus flexible credits)	Total
1	£275	£0	£330	£615
2	£1,648	£0	£405	£2,206
3	£3,410	£125	£538	£4,313
4	£7,345	£125	£1,036	£9,094
5	£13,149	£2,018	£1,476	£17,734
6	£25,390	£2,018	£1,926	£30,605

Negativity – and bioaccessibility

The Environment Agency's *Science Update 02* set out its views on *in vitro* bioaccessibility testing – but the British Geological Survey has issued a statement, expressing reservations.

We feel that the Environment Agency *Science Update 02* (BB, July 2007) presents an overly negative point of view regarding bioaccessibility measurements and contains a number of inaccuracies and omissions concerning the current status of research in this area.

In reporting research and developments since February 2005, the Agency has only reported on its own initiatives, e.g., the Oxford workshop and the EA ring test study, it makes no mention of the work of other UK research institutes/universities interested in bioaccessibility or other studies currently taking place across the UK, for example at Northumbria University, the University of Edinburgh, the University of Nottingham, the University of Reading and the University of Plymouth. We believe the results of the Agency ring test have little relevance to bioaccessibility testing in the UK, since the test materials were so highly contaminated (many times greater than the current SGV values) that they would never have been considered for testing under normal circumstances.

The Agency has failed to mention anywhere in this document a major study published by the BGS looking at the relationships between the geochemistry and bioaccessibility of arsenic in Lincolnshire soils (Palumbo-Roe et al., 2005).

We feel strongly that the Agency has failed to take account of a wide range of work carried out by many international institutions since 2005 (Barth et al., 2005, Basta et al., 2005, Beak and Basta, 2005, Chung et al., 2005, Dayton and Basta, 2005a, b, Goldberg et al., 2005, Jimoh et al., 2005, Koch et al., 2005, Mullen et al., 2005, Nathanail, C P et al., 2005; Nathanail, P et al., 2005; O'Connor et al., 2005; Palumbo-Roe et al., 2005; Sonmez and Pierzynski, 2005; Twining et al., 2005; Van De Wiele et al., 2005; Vasiluk et al., 2005, Versantvoort et al., 2005, Waisberg et al., 2005, Wells et al., 2005; Yang et al., 2005; Zhang et al., 2005; Miro and Hansen, 2006). Many of these authors are developing new and novel methods showing that bioaccessibility is a very rich area of research, a positive point that is not put across in the Agency document. There is also no mention of the work of the **BioAccessibility Research Group of Europe** (BARGE) or

BioAccessibility Research Canada (BARC). We would also suggest that, if the Agency is going to discuss the work of the **Exponent Group** it should also acknowledge that there are a number of other very active research groups in North America and Europe whose work should also be considered. We feel that the Agency's summary of international R&D and many of its statements on bioavailability/bioaccessibility are subjective and need to be supported by specific evidence from the literature giving examples.

Although there are no reference materials with *in vivo* data, many soils with such data have been used by BGS and other workers to validate *in vitro* methods (Ruby et al., 1996, Rodriguez et al., 1999, Ellickson et al., 2001; Schroder et al., 2003; Marschner et al., 2006).

We agree entirely with the Agency's statement that geochemistry is likely to play a major role and would go further and say that geochemistry does play a major role in governing dissolution and bioavailability. There have been a number of very detailed studies that show this (Basta et al., 2005, Beak and Basta, 2005, Chung et al., 2005, Jimoh et al., 2005, Koch et al., 2005, Palumbo-Roe et al., 2005, Sonmez and Pierzynski, 2005, Yang et al., 2005). Specifically the study by Palumbo-Roe et al. 2005 has given a very detailed understanding of how the geochemistry of the Lincolnshire ironstone soils affects the bioaccessibility of arsenic in the soil.

With regard to the Agency's statement on knowledge gaps, a clear distinction should be made between correlation coefficients and values of r^2 . Linear models should not be the only criterion; we suggest that the 'lines of evidence' approach is more meaningful.

The Agency's statement that the PBET method was designed for a single metal is incorrect. The PBET method was not designed for any particular element nor should it be. It was designed to mimic the chemical conditions in the human gastrointestinal (GI) tract and applied to smelter impacted soils.

It appears that the Agency has a problem in dealing with the uncertainty surrounding such issues as UK soils being different to

those used to validate *in vitro* tests – what the Agency seems to want is a test that is validated *in vivo* for each UK soil type before it will consider bioaccessibility testing. This seems to be a contradiction of policy with regards to animal testing. On the other hand the BGS has directed its efforts to a geochemical understanding of the soil matrix through a specialised sequential extraction test that is very capable of defining which soil (mineral) phases are contributing to the bioaccessibility of a particular contaminant.

The Agency states the experience of other countries indicates that the applicability of an *in vitro* method for a wide range of soil types is unknown – this statement needs to be backed up with specific references or it appears totally subjective.

In *The Way Forward*, the Agency states that other countries are employing suitable animal models to carry out *in vivo* work, but does not list the countries or the research groups. It is our understanding that the only validated animal model is the juvenile swine model for lead, recently adapted by the U.S. **Environmental Protection Agency**.

The sentence starting: "Without similar effort in the UK..." does not make sense; what does the Agency mean by validation? If the methods are validated then they have been compared to *in vivo* results. Is the Agency suggesting animal studies? We cannot understand why soils that have *in vivo* data already cannot be used to validate *in vitro* methods. We believe that counter arguments about soil types is irrelevant if the geochemistry and solid phase distribution of the contaminant in the soil is understood and is used in conjunction with *in vitro* data as another line of evidence.

In the Agency's summary of issues, the statement that there is a lack of user driven research for *in vitro* methods is misleading and obfuscates the issue that the Agency is reluctant to provide guidance. In many instances, the end-users are not in a position to carry out bioaccessibility research and development or do not have funding to do it. This should be a government-led initiative, similar to the situation in other countries (e.g. USA, Canada, Netherlands, Denmark, Germany and France)

The statement that there is no standard method yet, but the research community is moving towards this, is incorrect. There was a USEPA accepted *in vitro* method for lead at the time this technical document was released. We agree however, that the research community is still working towards a validated method for arsenic.

The Agency seems to be of an opinion that there is a need for a different test for each contaminant, but we believe this is not necessary. There is, however, a need for one test that is physiologically relevant for all contaminants, but that may require different analysis protocols (particularly for organic contaminants).

Summary

In our view, the Agency's *Science Update 02* presents an unbalanced view of the current state of bioaccessibility testing. The document contains a number of inaccuracies, biases and omissions concerning the current status of international research.

We find the Agency's attitude contradictory to its risk-based approach to dealing with contaminated land. The Agency has not supplied any encouragement or support to the few who are working in this research area to try and improve the situation for consultants and local authorities working on contaminated land issues.

British Geological Survey:

► <http://www.bgs.ac.uk/>

The Bioaccessibility Research Group of Europe: ► <http://www.bgs.ac.uk/barge>
BioAccessability Research Canada:

► <http://www.cntc.ca>

Environment Agency Science Update 02:

► http://www.environment-agency.gov.uk/commodata/acrobat/science_update_02_1793841.pdf

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Letter

Waste at Wheal Maid wasn't Wheal Jane's

Sir, I notice in *Brownfield Briefing's* November 2007 issue a brief article regarding the contaminated site at **Wheal Maid** near Redruth. I am prompted to write on behalf of South Crofty as there is one misstatement in the report. This said, and I quote: "the 10ha site was used in the 1970s and 1980s to dispose waste from Mount Wellington and **Wheal Jane** Tin Mines".

This statement is incorrect as no material from the Wheal Jane tin mine was ever deposited in the Wheal Maid Valley. The misunderstanding may arise from the Wheal Maid closure strategy draft which said: "the facility was used for the storage of residues arising from the working of the Wheal Jane Mine" which was incorrect and this statement was contradicted to **Knight Piesold Ltd**, the

engineers concerned, in a letter to them of 17 September 1998, and again I quote: "incidentally under 1.1 there are no residues in Wheal Maid arising from the working of the Wheal Jane Mine. It all came from Mount Wellington".

I think it is important that you have this information as I would not wish the public to imagine that any of the contamination in the Wheal Maid Valley arose from the Wheal Jane Mine, where the Wheal Jane Group are undertaking significant restoration.

Yours faithfully

**D. M. Giddings, For & on behalf of South Crofty Ltd
Old Mine Office, Wheal Jane, Baldhu, Truro TR3 6EE**

SCOTLAND

New SEPA buildings

The **Scottish Environment Protection Agency** are proposing replacing the Agency's existing buildings in Aberdeen's Torry area with new office and laboratory facilities, new housing and office accommodation for SEPA, **Scottish Natural Heritage** and the **Joint Nature Conservation Committee**. "It will be built on a brownfield site, using solar panels, groundwater heat pump, wind turbines and employing highly sustainable building materials," said SEPA director of finance and corporate services **John Ford**. "Shared accommodation with SNH and JNCC also reflects our ongoing commitment to deliver a cost-efficient service to the taxpayer."

► <http://www.sepa.org.uk/news/releases/view.asp?id=610&y=2007>

Chirside expansion

Work has begun on a derelict plot at **Ahlstrom's** Chirside site in Borders region to build a new production facility for the company. The development, supported by **Scottish Enterprise Borders** and **Scottish Development International**, will see a 4,000m² facility built for production of the company's paper and non-woven projects. SE is giving £1m for initial groundwork to prepare the site for development.

► http://www.scottish-enterprise.com/sedotcom_home/news-se/news-fullarticle.htm?articleid=227987

NORTHERN IRELAND

Fort George

Proposals have been launched for Derry's 6ha Fort George site where the Social Development Department, **Derry City Council** and **Ilex** have been working on a masterplan. The proposals for the former shipyard include a mix of IT

industry, residential, offices, education and leisure. "Exciting times lie ahead for Derry," said social development minister **Margaret Ritchie**.

► <http://www.northernireland.gov.uk/news/news-dsd/news-dsd-061207-exciting-times-ahead.htm>

NORTH EAST

Pilgrim Street

Newcastle City Council has produced plans for 17ha in the city centre around East Pilgrim Street where it wants to regenerate the retail sector. Three options will include new stores, new streets and public spaces. The area includes a variety of buildings including listed 18th century and 20th century art deco structures and these will be restored.

► <http://www.newcastle.gov.uk/core.nsf/a/pilgrimstreet>

Consett works

Derwentside District Council has given **Barratt Newcastle** and permission to build 277 houses and 64 flats on part of a former steel works site in Consett. Critics complain the development contains no affordable homes but the site will require an estimated £9m in remediation.

NORTH WEST

**Homes kick off**

Work is about to begin on building 440 homes on the former **Manchester City FC** Maine Road ground following the site's transfer from **English Partnerships** to **Lowry Homes**. EP funded the demolition and clearance who also committed £2m to the scheme. "The Maine

Place development represents a unique opportunity to improve housing quality and choice in the Moss Side and Rusholme area, for existing residents and newcomers alike," said **Manchester City Council** leader **Sir Richard Leese**.

► <http://www.lowryhomes.com>

Brunswick Quay

Fresh plans are reportedly under consideration by **Ollerton Estates** to develop Liverpool's Brunswick Quay following the scrapping of plans for a 50-storey skyscraper. The new plan is for a series of lower towers with residential, catering and office space.

YORKS & HUMBERSIDE

Big plans for Dewsbury

Kirklees Council is supporting a wide ranging redevelopment of Dewsbury town centre. It hopes to attract 30-40,000m² of retail space and 70,000m² of other commercial space including offices, housing, leisure, education and a hotel in the site between Halifax Road, Northgate, Bond Street, Branch Road, Westgate, Grove Street, Daisy Hill, Church Street, South Street and the bus station. "The regeneration of the town centre is critical for Dewsbury," said leader **Robert Light**.

"Continuing discussions will take place with Stayton – the only developer to have shown an interest in a major redevelopment of the town – to ensure that its overall proposals for the town fit in with development frameworks."

► <http://www2.kirklees.gov.uk/news/press-release/bodytitle.asp?ID=3269>

Garrison town

Richmondshire District Council has given its biggest single planning consent ever – for new town centre development in Catterick Garrison. The Sha development will include shops, offices, a hotel, health centre, houses

and flats and leisure facilities. "We were concerned that the development may have an impact on Richmond town centre, and we brought in independent consultants to advise us what kind of safeguards could be put in place to offset any impact on existing businesses," said planning chairman **Campbell Dawson**. "The applicants have also agreed to contribute £200,000 to boost the economy of Richmond town centre."

► <http://www.richmondshire.gov.uk/news-and-events/press-releases/go-ahead%20for%20Omassive%20town%20cent.aspx?theme=print>

Pit proposals

UK Coal and Helical Bar have announced plans for a 60,000m² government office campus at Waverley, near Rotherham, on the 300ha site of a former mine. The move is part of a plan by UK Coal to develop 4,000 homes, a business park, community facilities, park and ride and country park on the site. "We are delighted to be working with UK COAL to fulfil the needs of the 21st century public sector estate, while also helping to regenerate the largest single brownfield development site in South Yorkshire," said Helical Bar chief executive **Mike Slade**.

► <http://miranda.hemscott.com/static/cms/2/4/2/6/binary/5649455253/187613.pdf>

Baths Hall work begins

Work has begun on asbestos and demolition at Scunthorpe's Baths Hall and a laundry to allow land remediation on a former gas works site to take place next summer. The site, where **North Lincolnshire Council** plans an entertainment venue, is contaminated with inorganic and organic chemicals.

► <http://www.northlincs.gov.uk/NorthLincs/News/PressReleases/YouthCentreDemolished.htm>

WEST MIDLANDS

Hereford plans

ESG Herefordshire has put on an exhibition showing the three developments short-listed for Hereford's former livestock market site where Herefordshire Council and Advantage West Midlands hope to attract retail and leisure used. The 5ha site is intended to accommodate a major department and Waitrose store, cinema, bars and an hotel. Miller, Modus and Stanhope have put forward schemes.

► <http://www.advantagemw.co.uk/news-media-events/news/2007/11/developers-plans-unveiled-for-new-retail-and-leisure-quarter-in-hereford.aspx>

SOUTH WEST

Bristol Arena dropped

The partners in the ambitious Bristol Arena scheme have



decided it cannot go ahead because land assets, remediation, essential services and a subsidy for the arena would cost a whopping £86m. The plan for the former railway diesel depot failed because building public indoor arenas produces an asset worth less than the cost and the money was unavailable. The South West Regional Development Agency now plans housing and commercial development on the site. Agency board member John Savage said £86m was "just unacceptable".

► <http://www.southwestrda.org.uk/news/release.asp?ReleaseID=2249>

Go ahead in Bath

Bath & North East Somerset Council has approved Crest

Nicholson's outline and phase one detailed planning applications for the Bath Western Riverside development. The scheme includes up to 2,281 homes, student accommodation, retail, catering, open space and a school. An Article 14 direction was, however, placed on the development in January although the Council and developer are hopeful it will be lifted.

► <http://www.crestnicholson.com/aboutus/articles.aspx?id=645>

SOUTH EAST

Rochester Riverside

The South East England Development Agency has selected Crest Nicholson with Bioregional Quintain as the preferred developer for the first 600 houses in the Rochester Riverside development, from a short list of four. The 7ha site is also likely to see open space, shops, offices and catering facilities. The intention is for the houses to reach the Code of Sustainable Homes Level 6.

► http://www.seeda.co.uk/news_&_events/press_releases/2007/20071128.asp

Another go at Shoreham

The South East England Development Agency has agreed to give £2.95m to the regeneration of Shoreham Harbour which could see 10,000 new homes and employment space. A range of bodies are presently taking forward the planning of the new development which will also see the port reconfigured. The proposals follow the abortive Shoreham Maritime scheme proposed in 2000 which failed because it required extensive upfront infrastructure and local opposition.

► http://www.seeda.co.uk/news_&_events/press_releases/2007/20071213.asp

Stone House Hospital English Partnerships has

shortlisted three developers for redevelopment of the former Stone House Hospital site near Dartford: a Barratt Homes/PJ Livesey consortium, Gladedale Holdings and a Moat Homes/Ardmore Construction consortium. The 6.1ha site was once a Victorian lunatic asylum and includes listed buildings.

► <http://www.englishpartnerships.co.uk/page.aspx?pointerid=15BB3572F11F45A9977D3E0C>

GREATER LONDON

Wood Wharf

The Wood Wharf Partnership – British Waterways, the Canary Wharf Group and Ballymore Properties – has launched proposals for the 7ha site next to Canary Wharf. It plans a major mixed use development including 1,400 homes.

► <http://www.woodwharf.com/index.php>

INTERNATIONAL

Five research projects agreed

European soil contamination research network SNOWMAN has secured funding for five projects after months of negotiation.

The five were recommended at a meeting in Vienna in May but contract negotiations with national funding organisations were protracted. But it can now go ahead with research on:-

- extending the natural attenuation of chlorinated solvents toolbox (ENACT);
- contaminated land management (MUSA);
- mobilization of organic pollutants by soil constituents in soil and groundwater (IOPSIM);
- perspectives on mobilization of prioritized contaminants in soil (PERSPEC);
- sustainable management of trace element contaminated soils (SUMATECS).

The go-ahead had to wait for consortium agreements for the projects and detailed

information should be available shortly. SNOWMAN will be participating in next year's Consoil conference in Milan with a special session. It is also planning to develop a research programme and to enlarge its funders' group.

► http://www.snowman-era.net/content.php?horiz_link=0&vert_link=10&article_nr=20

Technology verification

The European Commission is seeking views on a proposed EU-wide system for verifying environmental technologies. The possible scheme would see claims put forward by technology developers or vendors verified through assessment of test data and possibly followed by laboratory testing and a synthesis report issued. Such a scheme would begin in a few areas and its scope would widen subsequently. Views are required by 20 January.

► http://ec.europa.eu/environment/etap/consultation_en.htm

California attacks sprawl

California's attorney general, Edmund G Brown jr, has begun reaching agreements with county authorities in the state to tackle greenhouse emissions through "green buildings, alternative energy and wise land-use rules". Following state legislation aimed at tackling urban sprawl and other greenhouse problems (BB, August 2007), San Bernardino County has agreed to amend sprawl proposals to reduce transport emissions and other counties are following suit. These include "high density developments that reduce vehicle trips and utilize public transit". The state hopes to reduce emissions to 1990 levels by 2020 and cut them a further 80% by 2050. "This radical change in our fossil fuel economy demands imagination, massive investment and extraordinary ingenuity," said Mr Brown.

► <http://www.ag.ca.gov/newsalerts/release.php?id=1495>

Discussions in Kazakhstan

A workshop in Almaty to discuss soil contamination in Kazakhstan has focused on the international instruments for combating it. The meeting brought together municipal representatives from across the country and followed an **Asian Development Bank** project to monitor sustainable land management in the south of the country and had support from the **OSCE Centre** in Astana.

► http://www.akipress.com/en_news.php?id=25837

WASTE

McCallan calls for input from industry

Clare McCallan, waste policy manager at the **Environment Agency** has confirmed that the Code of Practice (relating to the Definition of Waste: developing greenfield/brownfield sites) is due in March 08.

She added that was relying on industry for input on how they would regulate themselves. She said until that date, current regulatory requirements apply.

Speaking at **EIC's Brownfield Day** at the Thames Gateway Forum, she said the EA was working with government to ensure right controls in the right place.

One or two sources at the Gateway Conference said the first soils will move from the Sheffield pilot hub/cluster site to neighbouring satellite sites in January 2008

As regards other activities, she the EA was working on the negotiation on the Waste Framework Directive Review; the circular 11/94 rewrite; Environmental Permitting - April 2008; the Inert Waste Review (a joint consultation with Defra is due in the next four weeks); and the Exemptions Review which is ongoing.

At an earlier talk, **Ann Harrison**, associate barrister at **Beachcroft**, said there is no immediate prospect of the proposed Waste Framework

Directive changes moving forward, saying the process could get bogged down the European legislative process.

Olympic sustainability plan commits to 90% reuse

The **Olympic Delivery Authority** is committing itself to retain the 90% reuse and recycling for Olympic Park demolition materials – subject to access limitations and health considerations and will set targets for remediation and construction in the months to come.

The renewed commitment is made in *Towards a One Planet 2012* sustainability plan for the work. It includes a lengthy discussion of waste against the background that most games structures will be temporary and will need removing once the six week games are over.

It makes a commitment to no waste being landfilled during the games, but only 90% in the construction phase. It says pre-demolition reclamation surveys are being carried out in partnership with **Bioregional**, the demolition and site clearance plan has been agreed, reuse and recycling is meeting the 90% target and the Olympic Park has been remodelled to reduce the amount of earth to be moved off-site.

“Our recent work with the ODA recycling and reclaiming the demolition waste on site shows what can be achieved,” said **Bioregional** executive director **Sue Riddlestone**. “We look forward to continuing to work together to achieve a truly sustainable ‘one planet 2012’.”

► <http://www.london2012.com/documents/locog-publications/london-2012-sustainability-plan.pdf>

Using materials efficiently

The **Waste & Resources Action Programme** has launched a guide to efficient use of materials in regeneration projects to improve the environmental performance of demolition and building. *The Efficient Use of Materials in Regeneration Projects*

includes the **Institution of Civil Engineers'** demolition protocol, site waste management plans and the WRAP “Recycled Quick Wins” approach. It is intended to apply across the entire construction process.

“Establishing the materials resource efficiency link will ensure that due consideration is given to a closed loop approach for the material arising from demolition by identifying where it can be recovered and re-used, or recycled, for use in the new-build project or other local projects,” said WRAP construction project manager for waste minimization. “In addition to the financial savings, which can be achieved, this closed loop approach will have the effect of minimising waste at source supporting the overall sustainable development agenda.”

The guide says there are opportunities for all involved in the construction supply chain, from clients to main contractors it is intended to identify savings and reduce waste arisings.

► http://www.wrap.org.uk/wrap_corporate/news/using_materials.html

LEGAL

Compost costs county council cash

Nottinghamshire County Council has received a £4,000 fine with £10,993 costs, for depositing green waste at two unlicensed sites in Nottinghamshire and South Yorkshire. “This case demonstrated systemic failure within the council which allowed the letting of contracts which resulted in the illegal disposal of green waste,” said **Environment Agency** environmental crime team leader **Peter Rutherford**. “All waste producers have a legal responsibility to ensure that their waste is properly disposed of.”

► <http://www.environment-agency.gov.uk/news/1921663?lang=en®ion=&projectstatus=&them>

e=&subject=&searchfor=&topic=&area=&month=

Leachate offences

Enniskillen Magistrates have fined **Fermanagh District Council** £20,000 for ongoing breaches of the waste management licence at its Glassmullagh landfill where leachate was first found discharging into a watercourse in 2004. When **Environment and Heritage Service** Officers visited the site, most recently on 13 November 2007, leachate was still being discharged.

► <http://www.northernireland.gov.uk/news/news-doe/news-doe-211107-fermanagh-district-council.htm>

Asbestos offences

Hartlepool Magistrates have fined **ABLE UK Holdings** £22,000 for mishandling asbestos at its Seaton Meadows landfill. The site is licensed for asbestos but **Environment Agency** inspectors found a bulldozer scooping up broken bonded asbestos and dumping on other uncovered asbestos waste with no cover material and no dampening or wetting to prevent fibre release. The company blamed difficulties obtaining cover material and a sub-contractor driver not obeying instructions.

► <http://www.environment-agency.gov.uk/news/1909672?lang=en®ion=&projectstatus=&theme=&subject=&searchfor=&topic=&area=&month=>

Palfrey fine

Taunton Deane and West Somerset Magistrates have fined **Anthony and Brenda Palfrey**, who run the **Wellington Waste transfer station**, £32,000 after they allowed unsuitable waste including asbestos to be dumped without documentation. The **Environment Agency** found five skips of asbestos outside the licensed area and it was later moved to another skip.

► <http://www.environment-agency.gov.uk/news/1916006?lang=en®ion=&projectstatus=&them>

e=&subject=&searchfor=&topic=&area=&month=

COMPANIES

Liability transfer deal sealed

WSP Environmental has taken on the environmental liability for a contaminated site in what it believes is the first major deal in UK property where the legal responsibility is transferred in this way.

“Active transfer” deals are familiar in America but the consultant believes the sale of the 50,000m² former Kodak imaging chemicals plant to Acorn Developments (Kirby), a subsidiary of International Process Plants and Equipment is a UK first. Acorn contracted WSP to remediate the site and to use the environmental liability transfer process. WSP Environmental will take on the obligation to clean up the site, including any cost overruns. It will be underpinned by insurance from ACE Environmental, brokered by Willis.

“We are delighted to have concluded this deal, which comes from connecting the experience and track record of our US colleagues in liability transfer with the strong market demand in Europe,” said WSP Environmental managing director **Stuart McLachlan**. “We expect active transfer to become increasingly accepted outside the US as a robust solution for companies looking to be released from the historical legacy of contaminated land liabilities in a responsible manner.”

► http://www1.wspgroup.com/environmental/news_details.asp?id=2473

Arcadis acquisition

Arcadis Geraghty & Miller International has announced it has acquired specialist providers of risk management and environmental consultancy to highly regulated industrial sectors, Vectra Group. The

company has offices throughout the UK as well as in the Netherlands and Middle East and the acquisition will allow services to be provided from a range of local offices. “Vectra offers the opportunity to provide complimentary services to a well established and mutual client base,” said AGMI managing director **Brian Crook**. “As clients strive to rationalise their supply chains AGMI is now even better positioned to provide those highly technical services that are key to many major industries.”

► <http://www.arcadisgmi.com/Downloads/VectreUKclientlist-PRESSRELEASE.pdf>

PEOPLE

New faces at Waterman

Waterman CPM Environmental Planning and Design has made a number of appointments at its Cirencester office. Joining from WWT Consulting is senior ecologist **Tim Smith** who specialises in botany and aquatic entomology. **Alison Pike** joins the Ecology Department as a graduate ecology consultant, **Paula Mawer** rejoins the company, after four years with **St James Place**, as pa in the Administration Department, **Laura Rettie** joins as marketing manager from RAFCTE, **Denise Burcham** joins from GWA in secretarial support and **Rosalind King** transfers to the Warrington office after six months as a graduate ecology consultant in Cirencester.

► <http://www.waterman-group.co.uk>

Phil Morgan

Sirius Engineering Group has appointed **Phil Morgan** to its Runcorn office. Prof Morgan has 20 years’ experience in consultancy and the oil and gas industries. He is visiting professor in environmental biotechnology at the University of Sheffield, chairman of CL:AIRE’s Technology and Research Group and chairman

of the Bioremediation LINK Programme Management Committee. “My passion is the practical application of new and improved site assessment and remediation technologies, helping to successfully regenerate brownfield sites that only a few years ago would have been impossible to decontaminate,” he says.

► <http://www.thesiriusgroup.com/>

Paul Tullett

The Environment Agency’s new west area manager is **Paul Tullett** who was previously area manager for the Ridings area in its North East region. He will be based at the Tewkesbury office and will be responsible for managing operations in Powys, Shropshire, Worcestershire and Gloucestershire. He replaces **John Adams** who takes on a region-wide flood defence role.

► <http://www.environment-agency.gov.uk/news/1921667?lang=en®ion=&projectstatus=&theme=&subject=&searchfor=&topic=&area=&month=>

Malcolm Smith

Groundsure has appointed **Malcolm Smith** as head of sales. Previously senior account manager at the Ordnance Survey, he will be responsible for strategic management of the sales force. “Malcolm joins at an exciting time for Groundsure as we embark on our next phase of realising future growth potential,” said managing director **Paul Livett**.

► <http://www.groundsure.com/>

Jo Strange

Card Geotechnics has promoted **Jo Strange** to be regional director at its Aldershot office. She is a chartered engineer and chartered environmentalist who specialises in contaminated land and waste management and is the joint author of the **Institution of Civil Engineers’ Contaminated Land – Investigation, Assessment and Remediation**. She has been with Card since

2002.

► <http://www.cardgeotechnics.co.uk/>

TENDERS

Sefton

Sefton Council is seeking to appoint a developer to work in partnership to bring forward 29ha of land in Southport for residential and employment use. The developer will work to adapt a plan for the site including remediation, flood alleviation and environmental impact.

Deadline: 4 February

Contact: Attn: Kevin Shutter, Technical Services Department, Sefton Council, 4th Floor, Magdalen House, Bootle, L20 3NJ
Tel: 0151 934 2761
Email: pmg@technical.sefton.gov.uk

► <http://www.sefton.gov.uk/>

Castle College

Castle College in Nottingham is seeking tenders for design, construction and commissioning of a further education college building. The work will include demolition of existing buildings, remediation and construction.

Deadline: 18 January

Contact: Attn: S.Eaton, Castle College, Maid Marian Way, Nottingham, NG1 6AB
Tel: 01522 537466

► <http://www.thorntonfirkin.com>

Merthyr Tydfil

Merthyr Tydfil County Borough Council is seeking tenders for contaminated land site investigation and risk assessment. The work is needed at the former Penyarden iron works site in Merthyr Tydfil.

Deadline: 3 January

Contact: Attn: Zoe Pieris, Public Health, Merthyr Tydfil County Borough Council, Civic centre, Castle Street, Merthyr Tydfil, CF47 8AN

Tel: 01685 725395

Email: zoe.pieris@merthyr.gov.uk

► <http://www.merthyr.gov.uk/>

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Environment And Culture Directorate

Contaminated Land Officer

£33,777 - £36,474

Ref: ENV/1150

Contaminated Land Technical Officer

£29,241 - £30,774

Ref: ENV/1151

Tower Hamlets has two posts for Contaminated Land Specialists who are tasked with responsibility for the continued implementation of our Contaminated Land Strategy. As part of the Environmental Protection Division's 'Health and Environment' team, you will work alongside other officers specialising in Air Quality, Sustainability and Noise and Vibration throughout the Borough.

In your role you will handle a wide diversity of issues ranging from site inspections, site management of Contractors, commenting on planning applications and assisting in the progressive implementation of the Contaminated Land Strategy.

In return we offer you the opportunity for further career development to build on their experience base within this vibrant, multicultural borough.

The regeneration of Tower Hamlets has delivered improvements to the quality of life of local people.

It has increased home ownership, improved education standards, built a new centre for the international business community and provided a new transport infrastructure that reaches across London, the UK and is within a few hours of Europe. Much of this has only been possible through the systematic redevelopment of brownfield sites.

As part of this Team you will be a key player in maintaining that momentum for development, regeneration and fulfilment of the Councils' Community Plan theme to provide 'a better place for living safely' for its residents, visitors and businesses. This is of ever increasing importance now with our role in assisting in the delivery of the 2012 Olympic Games.

Essential qualities include strong written and verbal communication skills, the ability to deal sensitively with issues and the ability to prioritise a demanding workload under tight deadlines.

You will be expected to use our computer network that provides full service support. You must have a recognised, relevant BSc degree and, preferably, eligible for membership of the CIEH or similar professional association such as SiLC (Specialists in Land Contamination), and have substantial post qualification experience.

Closing date for both posts: 2 January 2008.

For an online application pack please visit www.towerhamlets.gov.uk email recruitment@towerhamlets.gov.uk . Please quote the relevant reference number.

We shall ensure fairness and equal opportunities throughout our workforce and in service delivery. We welcome applications from suitably skilled candidates regardless of ethnicity, gender, disability, sexuality, religion or age.

www.towerhamlets.gov.uk



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Stonewall

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Contaminated Land Officer

(Ref: 63/07)

Maternity Cover for a period of up to 12 months

£24,081 to £28,896 Per Annum

Flextime Scheme + Final Salary Pension Scheme + Car Allowance/Lease Car + Free Parking

Based at Dereham - 37 hours per week

Exciting Opportunity

Environmental Health invites applications for the post of Contaminated Land Officer to provide maternity cover for a period of up to 12 months.

The role assists in the carrying out of the authority's statutory functions relating to contaminated land in terms of Environmental Protection Act Part II, and planning consultations/environmental searches.

We are looking for someone to become an effective part of the team for the period of the contract. A team player who is enthusiastic, organised and with excellent verbal communications is essential.

A minimum qualification of a degree in Environmental Science or equivalent is required. Two years' recent experience in contaminated land work is desirable.

If you would like an informal discussion about the post, please contact Andrew Grimley on 01362 656241.

Closing date: 17 December 2007.

Interviews: to be advised.

For further information and an application pack please visit our website - www.breckland.gov.uk or alternatively contact our 24 hour recruitment line on 01362 656345 or email recruitment@breckland.gov.uk

Breckland Council - An Equal Opportunity Employer



The Developer's Guide to Brownfield

Issue III, March 2008

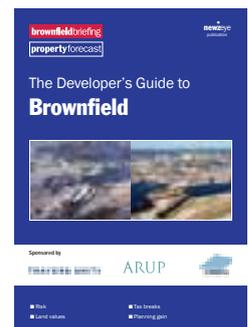
This publication is a recognised reference report for developers and is designed to provide information on the opportunities, pitfalls and profit potential related to developing on brownfield sites.

Issue III will be published in March 2008 and will include:

- Financing brownfield development
- Tax - making brownfield pay
- Planning permission for your site
- Brownfield land opportunities (UK & Europe)
- Legislation and policy update
- Mitigating risk via remediation
- Mitigating risk via insurance
- Minimising spend through effective risk assessment
- Flood risks for brownfield developments
- Choosing your consultant
- Developing your brownfield strategy
- Case studies
- Consultant and contractor listings

Sponsorship, advertising and editorial submissions within this publication offer an opportunity to profile your organisation to a high level of readership and key contacts.

For a media pack contact Emma Charter or Vicky Hague,
Tel: +44 (0)20 8969 1008, email: sales@brownfieldbriefing.com



EIC COLUMN

Contaminated land: what has happened to the way forward?

The risk-based approach to land contamination provides an objective, rational method for the management of risks from land affected by contamination and helps move towards more sustainable measures for doing so. However, since its introduction, the interpretation and application of the statutory guidance have been fraught with difficulties, resulting in controversy, project delays, legal battles, frustration, stress, unforeseen expenditure and devaluation of assets. Delays running into months in developing sites are not uncommon. At a time the Government plans a massive increase in house building resolving this is clearly a key priority.

Undoubtedly, many of the problems encountered are linked to the assessment of risks to human health. One of the first problems encountered was the lack of soil guidance values. Although Part 2A sets out the legal basis for identifying contaminated land, it does not provide technical details of how risks should be assessed. For this reason, the **Environment Agency**, in conjunction with DEFRA, produced a package of non-statutory guidance (CLEA) to support Part 2A. The CLEA methodology was published in 2002 and was accompanied by SGVs for seven contaminants. The SGVs were intended to aid local authorities in the identification of contaminated land by providing a mechanism for simplifying the risk assessment process.

Soon after its release, DEFRA circulated a letter (CLAN1/02) advising the withdrawal of the previous ICRL values. These applied to 20 contaminants and so their replacement with the limited suite of SGVs left a vacuum, catching practitioners by surprise. How were they now to assess sites with guideline values for only seven contaminants?

The official answer was for assessors to develop generic assessment criteria for contaminants with no SGV. There then followed a period of confusion with practitioners interpreting what this meant and producing a plethora of different assessment criteria being used. The lack of consistency created a particular challenge for environmental health officers charged with reviewing consultant reports submitted in support of planning applications. Out of the multitude of values being utilised, which were correct?

This uncertainty increased the length of time required by already overstretched EHOs for reviewing planning applications.

The **Environmental Industries Commission** lobbied hard for faster progress on SGVs and the government responded by setting up the **SGV Taskforce**, a group of representatives from interested parties.

The work of the Taskforce soon identified a more serious problem. Were the SGVs suitable for the purpose they were originally intended, i.e. as an aid for determination of contaminated land? Did exceedence of an SGV mean there was significant possibility of significant harm, one of the key requirements for defining contaminated land?

One contaminant illustrates the seriousness of this problem particularly well – benzo(a)pyrene. Generic assessment criteria for residential land use derived using the published health criteria value are generally no greater than 1.3 mg.kg⁻¹. Experience tells us that, in urban areas, the concentration of this contaminant is often in excess of 5 mg.kg⁻¹. Should houses with gardens in such areas be determined? Was the intention of Part 2A really to identify and prioritise remedial action at all these sites?

In November 2006, DEFRA published *Soil Guideline Values: The Way Forward*. This document outlined proposals for improvements to the non-statutory guidance to make it more applicable to Part 2A and to encourage the proportionate and sustainable management of land contamination.

Sue Ellis of DEFRA, speaking at EIC's National Land Remediation Conference in June, indicated that *The Way Forward* would be implemented, but she could not say when. Progress has occurred with further guidance underway – but the critical issue behind *The Way Forward* is what dose of a pollutant represents an unacceptable risk and this issue has yet to be resolved.

The sticking point relates to the way in which carcinogens are treated. *The Way Forward* argues that an incremental lifetime cancer risk (ILCR) for carcinogens of 10⁻⁴, is an appropriate benchmark for determining significant possibility of significant harm. The current approach is based on an ILCR of 10⁻⁵ and so implementing this proposal

would result in an increase in assessment criteria for benzo(a)pyrene by an order of magnitude. This could result in a significant reduction in land requiring remedial action. However, neither the UK's **Committee on Carcinogenicity** or the **Health Protection Authority** have yet endorsed this approach. Thus far, these differences in opinion have led to somewhat of a stalemate in the progression of *The Way Forward*.

This problem is exacerbated by DEFRA's practice of routinely moving staff around. The instigators of *The Way Forward* have now moved on and have been replaced with a new team who, in a recent meeting with EIC, said that *The Way Forward* is being re-evaluated. This can only mean yet more delay and uncertainty in how risks should be assessed.

Arguably the uncertainty in how guidance will change is today's biggest challenge faced by stakeholders in land affected by contamination. At present we are unable to tell the householder with 25 mg.kg⁻¹ arsenic in the back garden whether this constitutes contaminated land. Equally, we cannot tell the developer whether they can use the topsoil that contains 2mg.kg⁻¹ benzo(a)pyrene. So, until *The Way Forward* is brought to a conclusion, we can either choose the precautionary approach of assessing sites under the current guidance and running the risk of conducting unnecessary remediation or we can continue waiting for what could be months or years before these issues are resolved.

Initiatives and working partnerships between EIC and key bodies such as the **Chartered Institute of Environmental Health**, the Environment Agency and the HPA are underway. But whilst this work goes on, EIC will continue to lobby DEFRA to finish what they started and bring *The Way Forward* to its conclusion as quickly as possible, allowing practitioners to get on with what we are supposed to be doing – tackling risks from land contamination and allowing much needed development of brownfield sites to take place.

Simon Firth
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Member EIC Contaminated Land Working Group

GUEST COLUMN

Going public – a typical day

A fire officer met me at the door. “We’ve completed spill containment but there’s someone who would like to talk to you,” he said. Inside was a man whose face was covered with recently treated burns - and a detective who took me to one side.

“This man claims to have been making biodiesel in his back garden shed, when a bag of chemical exploded in his face,” he said. “Can you confirm whether his story checks out?”

Back in 1999 when I was doing research before co-authoring CIRIA’s contaminated land risk assessment guide, industry consultation revealed contaminated land professionals’ diverse backgrounds – biologists, chemists, geologists and engineers with a smattering of lawyers, mathematicians, economists and even accountants, all calling themselves contaminated land risk assessment practitioners. There is no one ideal qualification, but today was a good day to be a chemist.

“Yes, these chemicals are consistent

with the type and quantity needed to make biodiesel,” I responded.

The detective said his attendance was at such incidents was routine, given today’s international climate, but obtaining scientific assistance was more difficult, especially out-of-hours.

Later, after warning the householder about handling even domestically available chemicals, I travelled to view the commencement of a site investigation for a proposed new development. The developer had wisely decided to take local residents’ claims of “buried toxic waste from the 1940s” into account at the planning stage and I watched as three trial trenches failed to reveal obvious wastes. As I left, one resident admitted: “Perhaps my memory is fading after all these years”.

Is this a typical day for a specialist pollution officer? It’s difficult to say, as there is no such thing as routine. Regulators like pollution control and contaminated land officers are very much on the front line and

making rapid decisions is just a normal part of the day. They often work as the authority’s sole specialist and need a grasp of a wide range of pollution and historic land contamination issues.

But they are not alone. Having recently switched to the public sector after 25 years’ private consultancy, I am struck by an unexpected willingness of officers to share experience and provide assistance. I chaired a surgery at NSCA’s autumn conference in which technical and procedural problems were laid in front of the whole conference and responses were invited from both delegates and speakers. A lively discussion ensued.

So if you phone your local contaminated land officer without success, please be patient. They may be investigating a shed in your neighbourhood.

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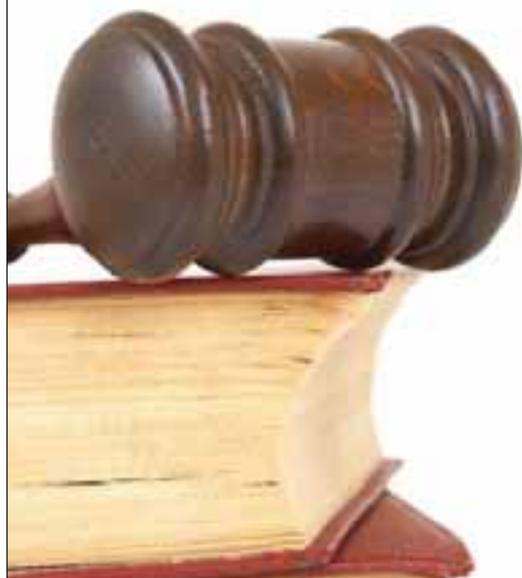
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Comment

Welcome to this month's eco-comment column, an eco-article on an eco-page in one of Britain's leading eco-magazines.

No, recent cold weather hasn't completely unhinged us, but the festive season demands a response in kind to the Government fashion which has brought us "eco-regions", "eco-quarters", "eco-towns" and "eco-villages" and where every developer's board now proclaims "a new development of eco-homes". Eco-everything, problem solved.

Or not. In truth, a raft of distinctly sub-prime policy on the environment is sliming its way into legislation and guidance, driven less by the earnest commitments to tackle climate change we saw in Bali as by the prime minister's single-minded obsession to build ever more homes. So we have a Planning Bill to tackle climate change that will make it easier to build airports and motorways and a Housing and Regeneration Bill that will actually increase greenhouse emissions. Joined up thinking at last.

Planning is a profession that has long believed it exists to protect the environment, so it was disappointing to see the **Royal Town Planning Institute** rushing to support the Planning Bill. There may be a few plum jobs for planners and less irritating public objections to deal with, but their decisions do affect the public directly and rolling back democracy is not going to make the planning process more acceptable.

Another profession that exists to protect the environment is the contaminated land community and it's equally disappointing to see hints that two years' work to sort out the mess in contaminated land assessment has not yet succeeded.

The route to eco-sustainability lies in the compact, locationally-efficient, public-transport served towns of the future. That will need many eco-things: functioning land remediation regulation, community participation and a rethought planning system among them. So don't hold your breath.

A Happy Eco-Christmas to all our readers.

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a newzeve publication

Caveat emptor

"The [Planning] Bill will include significant measures aimed at ensuring that the town and country planning better supports housing growth and climate change."

Hazel Blears MP, 27 November.

"I feel a bit like Gene Hunt in Life on Mars... It is one of my favourite shows."

Hazel Blears MP, 10 December

"A Bill's strength often lies in its ability to command wide-ranging support from a cross-section of organisations, and I am afraid that this Bill fails that test."

Tom Brake MP, 10 December

Buyer beware

Someone claiming to work for *Newzeve* has been calling selected consultants and contractors in Scotland and offering free passes to our conference "Legislative Changes in Brownfield and Contaminated Land: the Glasgow Edition". These calls are not legitimate and we are currently investigating the source. If you receive any such call or have any information, please contact Antonia or Vicky on 0208 969 1008.

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**Bioaccessibility/Bioavailability of Metals in Soils – A Workshop to Develop the Path
Forward to Identifying a Validated Method
March 3/09 1:30 – 4:00 p.m. (EST) Web Conference Call Meeting**

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