

SGVs and Brownfield Sites

Where we are now

David Rudland SiLC
Swindon Borough Council



Brownfield and Swindon BC



- The draft South West Regional Spatial Strategy identifies 35,000 dwellings for Swindon up to 2026
- The regeneration of Swindon's Central area remains essential to the strategy
- Swindon has a dedicated Urban Regeneration Company called The New Swindon Company to help deliver these objectives

Just 5 years ago.....

- Industry used ICRCL, around since c1978
- Usually as direct comparison with measured soil concentrations
- Supplemented by “Dutch” or other overseas “guideline values”
- Relatively little application of the conceptual model

Then along came CLEA

- CLEA 2002 software, CLR methodology and lots of “TOX reports”
- SGVs
- CLEA UK

Risk assessment developments

- DEFRA CLAN 2/05
- CLEA “Way Forward” published last November
- Proposals for adjusting the CLEA approach
- Examples:
 - NOAEL may become LOAEL
 - Adjusting significance benchmarks
 - Dealing with natural contamination
 - Risk reduction by receptor “education” and land use controls

But where does that leave regulatory judgement?

- Life goes on
- Take this scenario
 - A consultant provided SSAC by increasing the index dose criteria by factor of 10 “because the recent 'The Way Forward' said so”.
 - A consultant provides revised arsenic SSAC using bioaccessibility data
 - The regulator has to balance pragmatism with their duty to protect public health

Consider these:

- The DEFRA discussion was a series of options for technical and political discussion
- A number of these options were highlighted by DEFRA as changes which can be implemented immediately.
- Proposals regarding the approach to considering increased lifetime cancer risks were not highlighted in this way.

From a technical point of view:

- CLAN2/05 indicates current SGVs are not a measure of unacceptable risk ie indicate where land does *not* present a significant possibility of significant harm.
- Part IIA determination could be triggered at the limit of intake at which adverse effects would start to occur, rather than at a more precautionary level – NOAEL and LOAEL.
- Much would hinge on the quality and amount of the consultant's data.
- Usually a cue for refining risk assessment

Practical and Policy Considerations

- Over protection has a cost – not only in financial terms, but also in terms of what society has to give up in return. Not all the health and environmental benefits are positive.
- Stress resulting from fears about health risks, or about property values and saleability, can have negative impact on people's health which need to be balanced against benefits of increased risk reduction.
- Clean up of soil to meet guideline values involves the use of other environmental resources – energy, materials or landfill space.

To conclude

- Risk assessment in UK is continuing to change
- Meanwhile contamination is managed daily
- Risk assessment has to be of sufficient quality and quantity to inform decisions on “safe” levels
- The regulator will have to account for decisions made now in 1/5/10 years